



User Manual

20V CORDLESS MINI CHAINSAW
MC4501



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








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SYMBOLS

The following table depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

	READ THE OPERATOR'S MANUAL(S) – Read, understand and follow all instructions in the user manual(s) before attempting to assemble and operate.		SAFETY ALERT – Indicates a precaution, a warning or a danger.
 	WEAR EYE AND HEARING PROTECTION – For protection against injury, wear ear defenders, safety goggles, and head protection.	 	CAUTION! Avoid contacting the guide bar tip with any object. Tip contact may cause the guide bar to move suddenly upward and backward, which may cause serious injury to the user.
	WARNING! Do not expose the unit to rain or wet conditions.		Correct direction of cutting teeth.
	Wear safety gloves during use to protect hands.		Wear safety footwear at all times to provide protection against objects that may accidentally fall on feet.
	The moving part will continuously run for several seconds after you turn off the machine.		Indoor use only. Only use battery charger indoors.

SAFETY WARNINGS

All Operators Must Read These Instructions Before Use

Read all safety warnings and all 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.



DANGER! This indicates a hazardous situation, which, if not followed, will result in serious injury or death.



WARNING! This indicates a hazardous situation, which, if not avoided, could result in serious injury or death.



CAUTION! This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

Intended Use

This cordless mini chainsaw was designed and manufactured for trimming and pruning tree limbs and branches and for cutting smaller logs not to exceed a max. cut of 4.5 in. (11.4 cm) in diameter depending on the type of wood. All of the wooden objects intended to be cut with this mini chainsaw should be no thicker than the guide bar's maximum cutting capabilities.

Any other use differing from the above mentioned applications poses a serious hazard to the user and may damage both the tool and your personal property. Improper use of the machine will invalidate the warranty and relieve the manufacturer from all liabilities. The user will consequently be liable for all and any damage or injury to himself/herself or others.

General Power Tool Safety Warnings



WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool. 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.

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.

Electric Safety



WARNING! Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.

- **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 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 an RCD 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 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 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 jewelry. Keep your hair, clothing and gloves away from moving parts** – Loose clothes, jewelry or long hair can be caught in moving parts
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used** – Use of dust collection can reduce dust-related hazards.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.**

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.
- **Disconnect the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools** – Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool** – Power tools are dangerous in the hands of untrained users.



- **Maintain Appliance With Care** – Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Inspect appliance cord periodically, and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **Check Damaged Parts** – Before further use of the appliance, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.
- **Use the power tool, accessories 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 do not allow for safe handling and control of the tool in unexpected situations.

Battery Tool Use and Care



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

- 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 appliances only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- When the 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 appliance 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 appliance to fire or excessive temperature. Exposure to fire or temperature above 104°F (40.5°C) may cause explosion.
- Follow all charging instructions and do not charge the battery pack or appliance outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Do not modify or attempt to repair the appliance or the battery pack (as applicable) except as indicated in the instructions for use and care.

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.

Safety Instructions for Mini Chainsaw

General mini chainsaw Safety Warnings

- **Keep all parts of the body away from the saw chain when the mini chainsaw is operating. Before you start the mini chainsaw, make sure the saw chain is not contacting anything.** A moment of inattention while operating the mini chainsaw may cause entanglement of your clothing or body with the saw chain.
- **Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring.** Saw chains contacting a "live" wire may make an exposed metal part of the power tool "live" and give the operator an electric shock.
- **Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended.** Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.
- **Always keep proper footing and operate the mini chainsaw only when standing on a fixed, secured and level surface.** Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the saw.
- **When cutting a limb that is under tension, be cautious of spring back.** When the tension in the wood fibers is released, the spring-loaded limb may strike the operator and/or throw the mini 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 saw by the handle with the saw switched off and away from your body. When transporting or storing the saw, always fit the guide bar cover.** Proper handling of the saw will reduce the likelihood of accidental contact with the moving saw chain.
- **Follow instructions for lubricating, chain tensioning and changing accessories.** An improperly tensioned or poorly lubricated chain may either break or increase the chance for kickback.
- **Cut wood only. Do not use the mini chainsaw for any other purpose. For example, do not use the mini chainsaw to cut plastic, masonry or non-wood building materials.** Using the mini chainsaw in these incorrect ways could result in serious damage to you and your tool.
- **Keep guards in place.** Protective guards should be checked periodically to ensure they are properly fitted and in correct working order.
- **Do not grasp the exposed cutting blade or cutting edges when picking up or holding the saw.** Be sure to encase the cutting bar in its protective sheath when not in use.
- **This saw is not intended for tree felling.** Use of the saw for operations different than intended could result in serious injury to the operator or bystanders.

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 mini chainsaw user, you should take several steps to keep your cutting jobs free from accident or injury. Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- **Maintain a firm grip, with thumb and fingers encircling the saw handle and position your body and arm to allow you to resist kick-back forces.** Kick-back forces can be controlled by the operator, if proper precautions are taken. Do not let go of the saw.
- **Do not overreach and do not cut above shoulder height.** This helps prevent unintended tip contact and enables better control of the unit in unexpected situations.
- **Only use replacement bars and chains specified by the manufacturer.** Incorrect replacement of bars and chains may cause chain breakage and/or kickback.
- **Never use a dull or loose chain.** Keep the chain sharp and properly tensioned.
- **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

Additional safety instructions for Mini Chainsaw

- The mini chainsaw is designed for cutting branches. Only use the **mini chainsaw** as indicated in this manual for cutting wood. The machine has not been designed for continuous, professional use.
- Keep the mini chainsaw out of reach of children. It is not a toy.
- Persons with limited physical, sensorial or mental abilities are not allowed to use the mini chainsaw, unless they are supervised for their safety by a qualified person or are briefed by the responsible person on how to use the machine.
- Children and adolescents are not allowed to use the mini chainsaw. Excluded from this prohibition are young people over 16 years of age under the supervision of an expert for the purpose of training.
- Please note the warning symbols. They mark all those instructions that are important for safety reasons. Observe these instructions as failure to do so could result in serious injury!
- The mini chainsaw must be used only by one person at a time. Make sure bystanders do not stay in the vicinity of the mini chainsaw's work area.
- Check the safe operating condition of the mini chainsaw, in particular the guide bar and the saw chain, before each operation.
- Always have a safe stand when working with the saw.
- Hold the machine firmly and securely when switching on.
- Make sure the guide bar and the saw chain are free when switched on and don't come into contact with the workpiece to be cut.
- Keep your hands away from the sawing area. Do not reach under the workpiece. Contact with the saw chain may result in injury.
- Guide the mini chainsaw onto the workpiece only when switched on. Otherwise there is a risk of kick-back if the saw chain gets caught in the workpiece.
- When sawing, the base plate must always face against the workpiece. The saw chain can become jammed and lead to loss of control over the machine.
- When the cut is completed, switch off the machine and then pull the saw chain out of the cut only after it has come to a standstill. This way you can avoid kick-back.
- Clamp the material to be processed well. Do not support the workpiece with your hand or foot. Do not touch objects or the floor with the saw running. Danger of kick-back.
- When sawing converted timber and thin branches, always use a strong support, such as a sawing trestle. Do not stack timber pieces.
- Before cutting logs, secure the logs in position.
- When working on sloping ground, make sure to work facing upwards.
- Be particularly careful when cutting splintered wood. Splinters of wood can be torn along by the saw chain and increase the risk of injury!
- Foreign objects such as nails, screws, metal parts, sand, etc. lead to increased wear on the guide bar and saw chain.

- A blunt saw chain can cause overheating and damage to the motor.
- Always remove the battery when checking the chain tension, to re-tighten it, to mount the saw chain and to eliminate faults! Also remove the battery if you do not use the machine temporarily

Battery & Charger Safety Instructions

We pay a great deal of attention to the design of every battery pack to ensure that we supply you with batteries that are safe, durable and have a high energy density. The battery cells have a wide range of safety devices. Each individual cell is initially formatted and its electrical characteristic curves are recorded. This data is then used exclusively to be able to assemble the best possible battery packs.

Despite all the safety precautions, caution must always be exercised when handling batteries. The following points must be obeyed at all times to ensure safe use. Safe use can only be guaranteed if undamaged cells are used. Incorrect handling of the battery pack can cause cell damage.

IMPORTANT! Analyses confirm that incorrect use and poor care of high-performance batteries are the main factors responsible for personal and/or product damage.



WARNING! Use only approved replacement batteries; other batteries may damage the cordless mini chainsaw and cause it to malfunction, which can lead to serious personal injury.



WARNING! Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.

Do not modify or attempt to repair the appliance or the battery pack except as indicated in the instructions for use and care.

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




CAUTION! To reduce the risk of injury, charge the 20V iON+ lithium-ion battery pack only in its designated 20V iON+ lithium-ion charger. Other types of chargers present risk of fire, personal injury and damage. Do not wire a battery pack to a power supply plug or car cigarette lighter. Such misuse will permanently disable or damage the battery pack.

- **Avoid dangerous environments** – Do not charge the battery pack in rain, snow or in damp or wet locations. Do not use the battery pack or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing the battery pack, which could lead to a fire.
- **Charge in a well-ventilated area** – Do not block the charger vents. Keep them clear to allow for proper ventilation. Do not allow smoking or open flames near a charging battery pack. Vented gases may explode.

NOTE: The safe temperature range for the battery is 41°F – 105°F (5°C – 40.5°C). Do not charge the battery outside in freezing weather; charge it at room temperature.



- **Maintain charger cord** – When unplugging the charger, pull the plug, not the cord, from the receptacle to reduce the risk of damage to the electrical plug and cord. Never carry the charger by its cord or yank it by the cord to disconnect it from the receptacle. Keep the cord away from heat, oil and sharp edges. Make sure the cord will not be stepped on, tripped over or subjected to damage or stress when the charger is in use. Do not use the charger with a damaged cord or plug. Replace a damaged charger immediately.
- **Do not use an extension cord unless it is absolutely necessary** – Using the wrong, damaged or improperly wired extension cord poses a risk of fire and electric shock. If an extension cord must be used, plug the charger into a properly wired 16 gauge or larger extension cord with the female plug matching the male plug on the charger. Make sure that the extension cord is in good electrical condition.
- **Charger BBT-XH20V is rated for 100 – 240 volt AC only** – The charger must be plugged into an appropriate receptacle.
- **Use only recommended attachments** – Use of an attachment not recommended or sold by the battery charger or battery pack manufacturer may result in risk of fire, electric shock or personal injury.
- **Unplug charger when not in use** – Make sure to disconnect battery pack from unplugged charger.

 **WARNING!** To reduce the risk of electric shock, always unplug the charger before performing any cleaning or maintenance. Do not allow water to flow into the charger. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.

Do not burn or incinerate the battery pack – The battery pack may explode, causing personal injury or damage. Toxic fumes and materials are created when battery pack is burned.

Do not crush, drop or damage battery pack – Do not use the battery pack or charger if they have sustained a sharp blow, been dropped, run over or have been damaged in any way (i.e. pierced with a nail, hit with a hammer, stepped on, etc.).

Do not disassemble – Incorrect reassembly may pose a serious risk of electric shock, fire or exposure to toxic battery chemicals.

- **Battery chemicals cause serious burns** – Never let a damaged battery pack contact the skin, eyes or mouth. If a damaged battery pack leaks battery chemicals, use rubber or neoprene gloves to safely dispose of it. If skin is exposed to battery fluids, wash the affected area with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose of contaminated clothing.
- **Do not short circuit** – A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as paper clips, coins, keys, screws, nails and other metallic objects. A short-circuited battery pack poses a risk of fire and severe personal injury.
- **Store your battery pack and charger in a cool, dry place** – Do not store the battery pack or charger where temperatures may exceed 105°F (40.5°C), such as in direct sunlight or inside a vehicle or metal building during the summer

Information about the battery

- The battery pack supplied with your cordless mini chainsaw is only partially charged. The battery pack has to be charged completely before you use the tool for the first time.
- For optimum battery performance, avoid low discharge cycles by charging the battery pack frequently.

- Store the battery pack in a cool place, ideally at 77°F (25°C) and charged to at least 40%.
- Lithium-ion batteries are subject to a natural aging process. The battery pack must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements needed for the proper operation of your mini chainsaw, and therefore pose a safety risk.
- Do not throw battery pack into an open fire as this poses a risk of explosion.
- Do not ignite the battery pack or expose it to fire.
- Do not exhaustively discharge the battery. Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partially discharged batteries. Stop working as soon as the performance of the battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after it has been fully charged.
- Protect the battery and the tool from overloads. Overloads will quickly result in overheating and cell damage inside the battery housing even if this overheating is not apparent externally.
- Avoid damage and shocks. Immediately replace batteries that have been dropped from a height of more than one meter or those that have been exposed to violent shocks, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In such instances, please read the waste disposal information for proper battery disposal.
- If the battery pack suffers overloading and overheating, the integrated protective cutoff will switch off the equipment for safety reasons.

IMPORTANT! Do not press the ON/OFF switch any more if the protective cutoff has been activated. This may damage the battery packs.

- Use only original battery packs. The use of other batteries poses a fire risk and may result in injuries or an explosion.

Information about the charger and the charging process

- Please check the data marked on the rating plate of the battery charger. Be sure to connect the battery charger to a power supply with the voltage marked on the rating plate. Never connect it to a different mains voltage.
- Protect the battery charger and its cord from damage. Keep the charger and its cord away from heat, oil and sharp edges.
- Electrical plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded appliances. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- Keep the battery charger, battery pack and the cordless tool out of the reach of children.
- Do not use the supplied battery charger to charge other cordless tools.
- During periods of heavy use, the battery pack will become warm. Allow the battery pack to cool to room temperature before connecting it to the charger to recharge.
- Do not overcharge the battery. Do not exceed the maximum charging times. These charging times only apply to discharged battery. Frequent insertion of a charged or partially charged battery pack will result in overcharging and cell damage. Do not leave the battery in the charger for days on end.
- Never use or charge the battery if you suspect that it has been more than 12 months since the last time it was charged. There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).
- Charging the battery at a temperature below 41°F (5°C) will cause chemical damage to the cells and may cause a fire.
- Do not use batteries that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.





- Do not use batteries that have suffered curvature or deformation during the charging process or those that exhibit other atypical symptoms (gassing, hissing, cracking, etc.).
- Never fully discharge the battery pack (maximum recommended depth of discharge is 80%). A complete discharge of the battery pack will lead to premature aging of the battery cells.

Protection from environmental influences

- Wear suitable work clothes. Wear safety goggles.
- Protect your cordless tool and the battery charger from moisture and rain. Moisture and rain can cause dangerous cell damage.
- Do not use the cordless tool or the battery charger near vapors and flammable liquids.
- Use the battery charger and cordless tools only in dry conditions and at an ambient temperature of 41°F – 105°F (5°C – 40.5°C).
- Do not keep the battery charger in places where the temperature is liable to reach over 105°F (40.5°C). In particular, do not leave the battery charger in a car that is parked in the sunshine.
- Protect the battery from overheating. Overloads, overcharging and exposure to direct sunlight will result in overheating and cell damage. Never charge or work with a battery that has been overheated – replace it immediately, if possible.
- Store the charger and your cordless tool only in dry locations with an ambient temperature of 41°F – 105°F (5°C – 40.5°C). Store your lithium-ion battery pack in a cool, dry place at a temperature of 77°F (25°C). Protect the battery pack, charger and cordless tool from humidity and direct sunlight. Only place fully charged battery in storage (charged to at least 40%).
- Prevent the lithium-ion battery pack from freezing. Battery pack that was stored below 32°F (0°C) for more than 60 minutes must be discarded.
- When handling batteries, be wary of electrostatic charge. Electrostatic discharges can damage the electronic protection system and the battery cells. Avoid electrostatic charging and never touch the battery poles.

MACHINE INFORMATION

Technical Specifications

Model No.	MC4501	Model Number	BBT-DC20A
Rated voltage	20V	Battery type	Lithium-ion
Bar/Chain Length	5 inch (12.7 cm)	Voltage	20V 
Cutting Thickness Max	Max: 4.5 in. (11.4 cm)	Capacity	2.0 Ah
Oil Bottle Capacity	Approx. 16ml	Recommended charger	BBT-YFT20V, BBT-XH20V
Net Weight	4 lbs (1.8 kg)	Weight	0.3 kg
		Model Number	BBT-XH20V
		Charger input	100-240V~60Hz 65W
		Charger output	21V  2.5A
		Charging time 2Ah battery	60 minutes
		Charging time 4Ah battery	120 minutes
		Recommended batteries	BBT-DC20A, BBT-DC40A
		Weight	0.36 kg

Only use the following batteries of the SnapFresh power 20V battery platform. Using any other batteries could cause serious injury or damage the tool.

BBT-DC20A 20V, 2Ah Lithium-ion

BBT-DC40A 20V, 4Ah Lithium-ion

The following charger can be used to charge these batteries.

BBT-YFT20V Quick charger

BBT-XH20V Rapid charger

The batteries of the SnapFresh power 20V battery platform are interchangeable with all the SnapFresh power 20V battery platform tools.

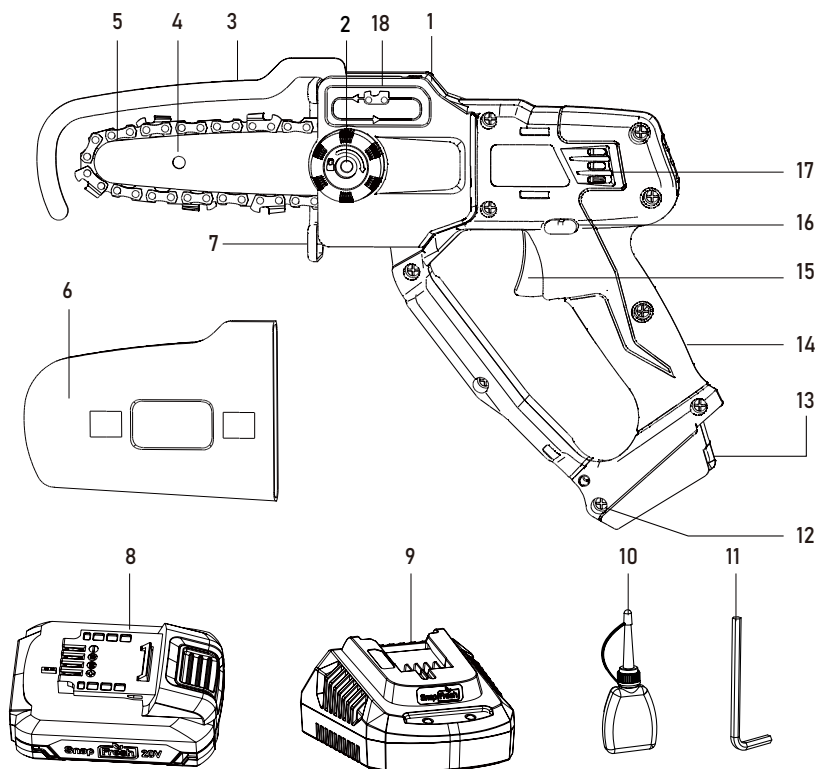
Unpacking

Carton Contents

- 1x Cordless mini chainsaw with chain and bar pre-assembled
- 1x Cutting bar sheath (assembled on the chain and bar)
- 1x Hex key wrench (in the storage slot)
- 1x Oil Bottle (empty)
- 1x 20V iON+ lithium-ion battery
- 1x 20V iON+ lithium-ion battery charger
- 1x User manual

Know Your Cordless Mini Chainsaw

Read the owner's manual and safety instructions carefully before operating your cordless mini chainsaw. Compare the illustration below to the cordless mini chainsaw in order to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.



- | | | |
|-----------------------------------|----------------------------|-------------------------|
| 1. Chain/sprocket end cover | 7. Base plate | 13. Battery compartment |
| 2. End cover knob | 8. 20V lithium-ion battery | 14. Handle grip |
| 3. Riving knife | 9. Charger | 15. On/Off switch |
| 4. 5-inch (12.7 cm) guide bar | 10. Oil bottle (empty) | 16. Safety lock button |
| 5. 5-inch (12.7 cm) cutting chain | 11. Hex key wrench | 17. Ventilation slots |
| 6. Cutting bar sheath | 12. Hex key wrench slot | 18. Oil inlet |

PREPARING TO WORK

Checking the Machine

WARNING! Before performing any checks, adjustments, repairs or maintenance on the machine, make sure the battery is not inserted in the compartment. Before starting work:

- Check that all the screws on the machine and the guide bar are tightly fastened.
- Check that the chain is tensioned correctly, sharp and there are no signs of any damage.
- Check that the hand grip and protection devices are clean and dry, correctly mounted and securely fastened to the machine.
- Check that the On/Off switch and the safety lock button move freely without forcing and return automatically and rapidly back to their neutral positions.
- Check that the On/Off switch remains locked until the safety lock button is pressed.
- Make sure the ventilation slots are not clogged with sawdust or debris.

Break-in Time for New Chains

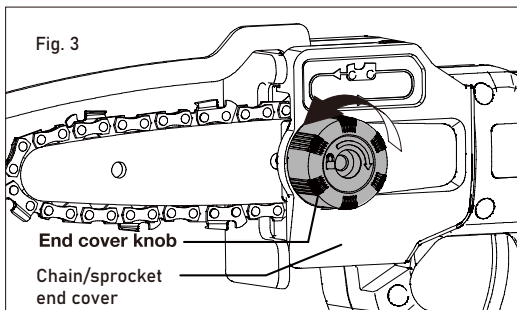
For safety operation, it's recommended to run through the below break-in tips every time a new chain is installed.

- Remove the battery and adjust the chain tension.
- Insert the battery and switch on the mini chainsaw and leave the motor running idle for approx. 5 minutes.
- Remove the battery and check the chain tension again. If necessary, re-tighten the chain.
- Afterwards make only easy cuts for approx. 30 minutes. Always ensure sufficient lubrication of the saw chain! Only use the mini chainsaw for heavier cuts and greater cutting depths after the break-in period.

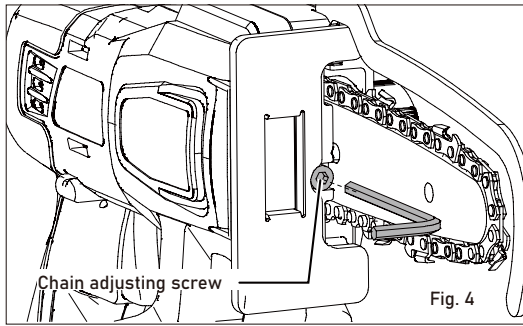
Adjusting the Chain Tension

WARNING! Use protective gloves when handling the bar and chain.

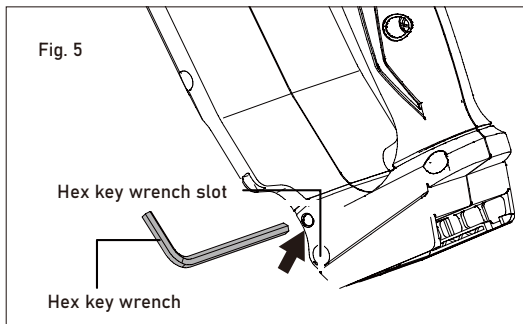
1. Make sure the mini chainsaw is shut off and the battery is removed. Loosen the chain/sprocket end cover a little by turning the end cover knob counterclockwise (Fig. 3).



2. Use the equipped hex key wrench to turn the chain adjusting screw clockwise to tighten; turn it counterclockwise to loosen. A cold chain will be correctly tensioned when there is no slack on the underside of the guide bar; the chain is snug, but it can be turned by hand without binding (Fig. 4).



NOTE: When not in use, the hex key wrench can be stored in the hex key wrench slot located on the bottom of the mini chainsaw (Fig. 5).



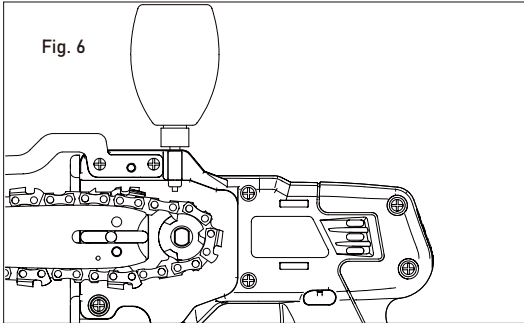
3. Retighten the end cover knob. Using a screwdriver, run the chain along the guide bar to check that it moves smoothly.

Chain Lubricant

IMPORTANT! Only use a good quality bar and chain oil designed specifically for use with chain saws to ensure optimal lubrication of the cutting parts. Do not use oil containing impurities.

IMPORTANT! The chain lubricating oil is bio-degradable. The use of mineral oil or engine oil can have a serious impact on the environment. It is essential that you use good quality oil to lubricate the cutting parts effectively. Used or poor quality oil does not guarantee good lubrication and reduces the lifespan of the chain and bar.

Before lubricating the mini chainsaw, clean the guide bar and saw chain with a soft brush. Clean oil inlet with top of oil bottle to ensure the oil inlet is not blocked by chips. Then drop the oil into oil inlet (Fig. 6). Or drop the oil between the chain and the bar. Insert the battery and switch on the mini chainsaw. The oil will be evenly distributed over the chain. For optimal cutting result, lubricate the saw every 30 minutes during operation. When storing the unit for a long period of time (3 months or longer), be sure the chain is lightly lubricated; this will prevent rust on the chain and bar sprocket.



OPERATION

Starting and Stopping

CAUTION! Starting, stopping, and restarting an electric motor repeatedly within a few seconds can generate a great deal of heat and damage the motor. To protect the life of your cordless mini chainsaw, always wait at least five seconds after stopping before restarting the saw.

WARNING! Be sure that the chain is not in contact with any object when you start the motor.

WARNING! Keep hands away from chain. Keep hand on handle. Do not overreach.

A good, firm grip on the tool will help you maintain control. Maintain a firm grip by placing your hand on the handle with thumb and fingers encircling the grip. A firm grip combined with proper positioning of the saw will help you maintain control of the saw. Do not let go of the saw while it is in operation.

WARNING! Do not operate the cordless mini chainsaw in a tree, on a ladder, or on a scaffold. Using the tool under such circumstances is extremely dangerous.

CAUTION! The chain will continue to run for several seconds after turning off the tool.

Do not use the mini chainsaw under wet conditions. Use extreme caution when cutting small brush, saplings, or limbs under tension because slender and tense material may catch the saw and be whipped toward you, pull you off balance, or spring back.

Do not use the saw to cut vines and/or small underbrush.

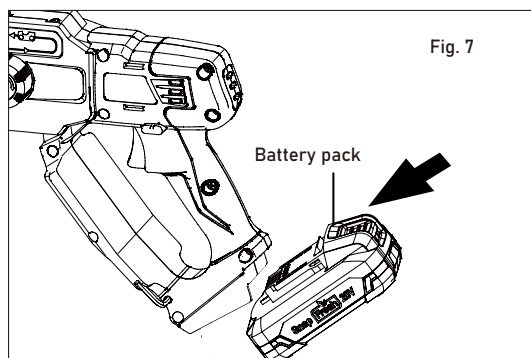
WARNING! Do not let familiarity with this type of tool prevent you from taking all necessary precautions. Remember that a careless fraction of a second is sufficient to inflict serious injury.

WARNING! Do not cut branches near electrical wires

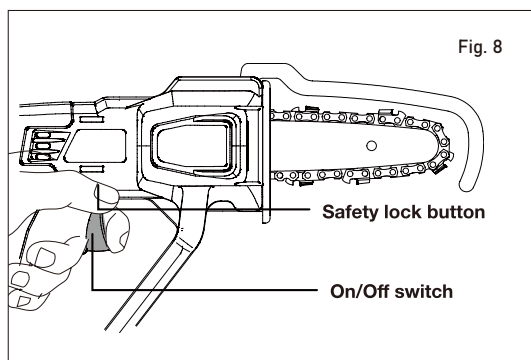
WARNING! Failure to lubricate the chain will cause damage to the bar and chain. Use only a good quality bar and chain oil designed specifically for use with chain saws.

1. Prior to each cutting session, run through the daily checklist (see pg. 17).

2. Insert the battery in the battery compartment. Push to make sure it is locked in place (Fig. 7).



3. To turn the tool on, hold the mini chainsaw firmly on the handle grip. Press the safety lock button, and squeeze the ON/Off switch. When the mini chainsaw is running, you can release the safety lock button (Fig. 8).



4. To turn the tool off, simply release the On/Off switch.

NOTE: Do not squeeze the On/Off switch until you are ready to make a cut.

OPERATING TIPS



WARNING! For your safety and that of others:

- Do not use the machine without reading the instructions carefully. Become acquainted with the controls and the proper use of the machine. Learn how to stop the machine quickly.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Always wear suitable clothing when using the machine. Wear anti-vibration gloves and other personal protective equipment.

All the above-mentioned precautions do not, however, guarantee the prevention of certain risks – i.e. Raynaud's phenomenon or Carpal tunnel syndrome. For operators who use this machine for prolonged periods, it is recommended to have periodic checkups on their hands and fingers. If any of the above mentioned symptoms should appear, please contact a physician immediately.

- Work only in daylight or good artificial light.
- Take utmost care when working near metal fences.
- Take care not to hit the bar hard against foreign objects or flying debris caused by the movement of the chain.
- Never reach over the riving knife or under the base plate. There is a risk of injury!
- Be sure that the chain is not in contact with any object when you start the unit.
- Clamp loose workpieces before cutting them. Remove foreign objects such as nails, screws, etc.
- When cutting a branch 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 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.
- When the saw chain is running, place the base plate on the surface of the workpiece and let the saw cut on its own. Apply only light pressure to the saw.

NOTE: The base plate helps to stabilize the saw and even the material being cut. It can also reduce the vibration of the saw significantly. The base plate also acts like the fulcrum for deep cuts because it raises the back end of the saw. Using the base plate like a pivot point allows you to go deep in the material with precise control.

- Stop the motor and remove the battery from the compartment:
 - Whenever you leave the machine unattended.
 - Before cleaning, checking or servicing the machine.
 - After striking a foreign object. Inspect the machine for any damage and make repairs before restarting it again.
 - If the machine begins to vibrate abnormally, immediately look for the cause of the vibrations.
 - When the machine is not in use.

IMPORTANT! Always remember that an incorrectly used mini chainsaw may disturb others and have a serious impact on the environment.

To respect people and the environment:

- Avoid using the machine in environments or at times of the day when it may disturb others.
- Scrupulously comply with local regulations and provisions for the disposal of waste materials after sawing.

- Scrupulously comply with local regulations and provisions for the disposal of oils, damaged parts or any elements that have a strong impact on the environment.
- A certain amount of chain lubricating oil is released into the environment when the machine is running, so only use biodegradable oils made specifically for this use.
- To avoid the risk of fire, do not leave the machine with the motor hot on leaves or dry grass.



WARNING! It takes specific training to use this tool.

Checks During Work

Checking the chain tension

The chain tends to stretch gradually as you work, so you need to check its tension frequently.

IMPORTANT! During the first period of use (or after replacing the chain), the chain tension must be checked more frequently due to settling of the chain.



WARNING! Never work with the chain loose, as it can be hazardous if the chain slips out of its guide.

To adjust the chain tension, follow the instructions in "Adjusting the Chain Tension" on page 11.

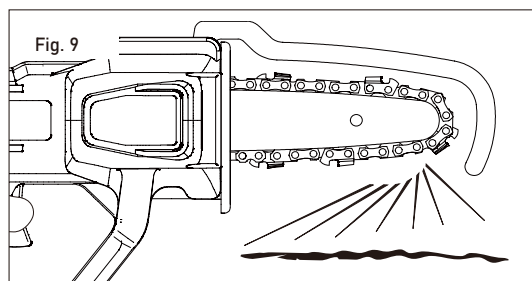
Checking the oil delivery

IMPORTANT! Never use the machine without lubrication! Make sure you lubricate the cutting area before and after using, and every 30 minutes during operation. For best results, use only a good quality bar and chain oil designed specifically for use with chain saws. Check the oil delivery as described below every time after lubricating the chain.



WARNING! Make sure the bar and the chain are in place when you check the oil delivery.

Start the motor and check if the chain oil is delivered as shown below (Fig. 9).

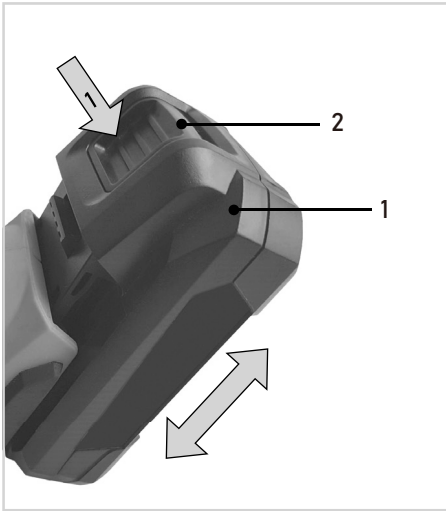


Basic Cutting Procedures

WARNING! This unit is designed for trimming branches and limbs up to 4.5 in. (11.4 cm), not to exceed a max. cut of 4.5 in. (11.4 cm) in diameter depending on type of wood. Practice cutting a few small limbs using the following technique to get the “feel” of using the saw before you begin a major sawing operation.

- Grip the saw firmly on the handle grip.
- Squeeze the trigger switch and let the chain accelerate to full speed before entering the cut.
- Keep the unit running the entire time you are cutting, maintaining a steady speed.
- Let the chain do the work; exert only light downward pressure. If you force the cut, damage to the bar, chain, or unit can result.
- Do not put the pressure on the saw at the end of the cut.
- Always cut with both feet on solid ground to prevent falling.
- Do not cut above chest height since it is difficult to control kickback forces with a saw held high.

BATTERY



Before any work on the power tool, remove the battery.



The battery must be charged before first use.

Description

1. Battery
2. Battery unlock button
3. Battery LED indicators
4. Battery LED indicators button
5. Charger
6. Charger LED indicators

Checking the battery charging status

- To check the battery charge status, push the button (6) on battery shortly.
- The battery has 3 lights indicating the charge level, the more lights that burn, the more charge the battery has left.
- When the lights are not burning it means the battery is empty and must be charged immediately.

Charging the battery with the charger

- Take the battery (1) from the machine.
- Turn the battery (1) to upside down position and slide it onto the charger (5).
- Push the battery until it is fully pushed into the slot.
- Plug the charger plug into an electrical outlet and wait for a while. The LED indicators (3) charger (5) will lighten up and show the charger status.

The LED indicators (3) will lighten up and show the charger status.

Red LED Status	Green LED status	Charger status
Off	Off	No power
Off	On	Standby mode: -No battery is inserted or, -Battery inserted but charging has finished
On	Off	Battery charging in progress

- Fully charging the 2Ah battery may take up to 60 minutes.
- Fully charging the 4Ah battery may up to 120 minutes.

After the battery is fully charged remove the charger plug from the outlet and remove the battery from the charger.



When the machine is not being used over a longer period of time it is best to store the battery in charged condition.

MAINTENANCE

Attention! Always remove the battery before carrying out any work on the machine.

To clean the tool, use a dry or moist, but not wet towel. Many cleaning agents contain chemical substances which may cause damage to the plastic parts of the tool. Do not use any strong or flammable cleaners such as petrol, paint thinner, turpentine or similar cleaning agents. Always keep air ventilation holes free of dust deposits to prevent overheating. Wear a dust mask and use a soft brush to clean the ventilation holes.

Servicing this tool must be done by a qualified person only. Service or maintenance performed by unqualified personnel could result in a risk of injury.

If the tool does not work properly, return the tool to a service facility for repair.

If the electrical cable is damaged, it may only be replaced by the supplier or by his repair workshop.

Battery disposal:



This symbol indicates that the batteries supplied with this product must not be treated as general household waste. To remove them safely, you must bring them to your retailer or discard them in special containers provided for the community. At the end of the device's life, remember to remove the batteries.

Motor Cooling

To avoid overheating and damage to the motor, always keep the ventilation slots clean and free of sawdust and debris.

General Cleaning

It's recommended to clean the mini chainsaw immediately after each use for best performance. Use a cloth, a paintbrush or a brush to remove dust and wood splinters. Always keep the ventilation slots clean and free from obstructions. Clean the housing of the mini chainsaw regularly with a damp cloth and somewhat soft soap. Do not use any cleaning or solvent materials. Make sure that no water or any other liquid can get inside the cordless power tool. Clean the sprocket area with a brush or compressed air (Fig. 10).

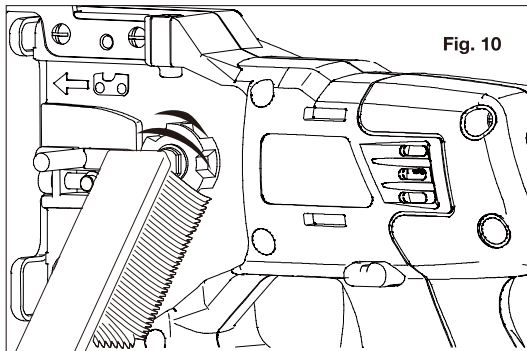


Fig. 10

Replacing the Guide Bar and Chain

NOTE: When replacing the guide bar and chain, use only identical replacement parts. Make sure the battery is not inserted in the compartment before proceeding with operation.

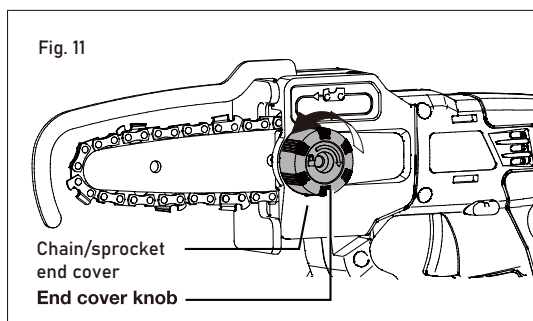
WARNING! Always wear heavy-duty gloves when handling the bar and chain. Mount the bar and chain very carefully so as not to impair the safety and efficiency of the machine.

WARNING! The operation should be completed on a flat and stable surface, with adequate space for moving the machine and its components.

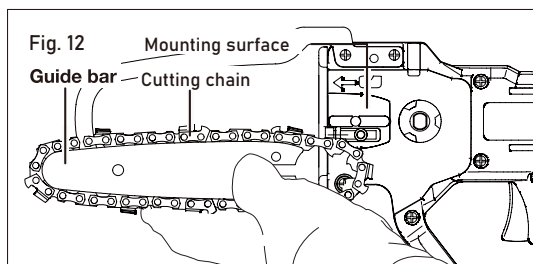
DANGER! Never start the motor before installing the guide bar, chain, and sprocket cover. Without all these parts in place, the clutch can fly off or explode, exposing the user to potentially serious injuries.

When you first purchase your mini chainsaw, the chain and bar will come pre-assembled on the saw. Should you need to replace the chain in the future, follow the steps below.


1. Screw the chain/sprocket end cover knob counterclockwise to release chain/sprocket end cover (Fig. 11).

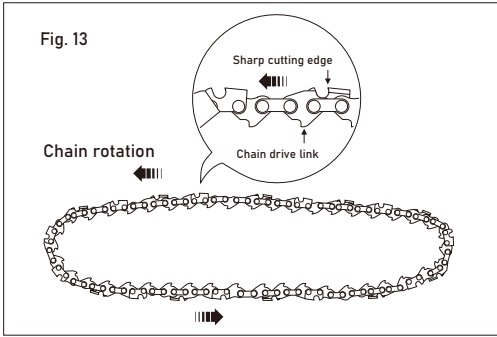


2. Remove the cutting bar and chain from the mounting surface (Fig. 12).



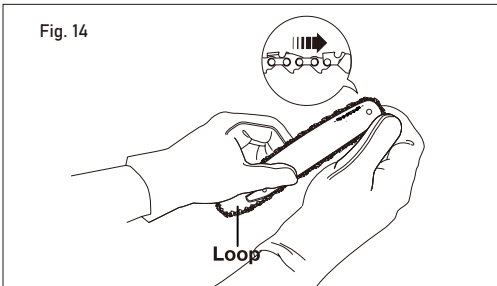
3. Remove the old chain from the bar

4. Lay out the new saw chain in a loop and straighten any kinks. **THE SHARP SIDE OF THE TEETH MUST FACE AWAY FROM YOU IN THE DIRECTION OF THE CHAIN ROTATION INDICATED ON THE GUIDE BAR** ←  ←. If the teeth face backwards, turn the loop over (Fig. 13).

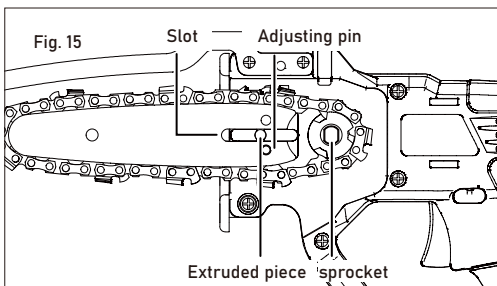


5. Starting at the tip, mount the chain drive links into the bar groove, leaving a loop at the back of the bar. The chain will loosely fit until it is placed on the sprocket (Fig. 14).

NOTE: Make certain of the direction of the chain. If the chain is mounted backwards, the saw will vibrate abnormally and will not cut.

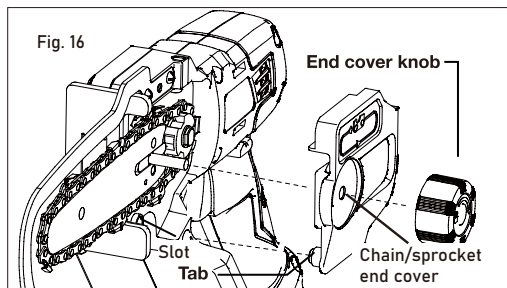


6. Hold the chain in position on the bar and place the loop around the sprocket. Fit the bar against the mounting surface so that the extruded piece on the mounting surface is in the long slot of the bar and the adjusting pin is in the chain tension pin hole (Fig. 15).

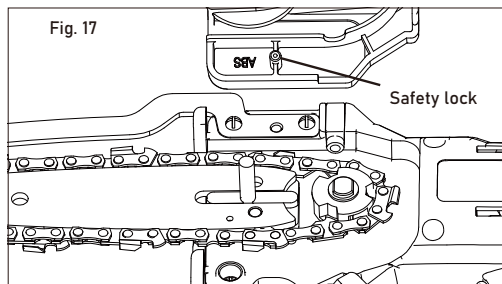


7. While keeping the bar and chain against the mounting surface, adjust the chain tension as needed by adjusting the chain tensioner screw with the supplied hex key wrench. Turn the chain tensioner screw clockwise to tighten the chain, or counter-clockwise to loosen the chain (Fig. 4).

8. Replace the chain/sprocket end cover by inserting the tab located on the bottom first into the slot and position the cover over the bar end. Tighten the end cover knob; leave the bar loose enough to move slightly for tension adjustment (Fig. 16).



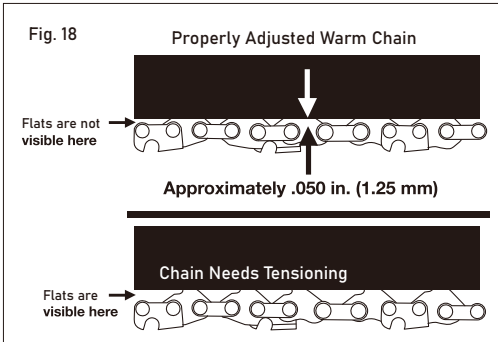
NOTE: Tool can't be operated when chain/sprocket end cover is removed; there is safety lock on the chain/sprocket end cover to avoid misoperation (Fig. 17).



Chain Tension

Check the chain tension before using the saw when the chain is cold. The correct tension of a cold chain is when there is no slack on the underside of the guide bar; the chain is snug, but you can rotate it by hand without binding.

During normal saw operation, the temperature of the chain will increase. The drive links of a correctly tensioned warm chain will hang approximately 0.050 in. (1.25 mm) out of the bar groove (Fig. 18). Be aware that a chain tensioned while warm may be too tight upon cooling. Check the "cold tension" before next use. The chain must be re-tensioned whenever the flats on the drive links hang out of the bar groove (Fig. 18).



Chain Sharpening

NOTE: Tool can't be operated when chain/sprocket end cover is removed; there is safety lock on the chain/sprocket end cover to avoid misoperation (Fig. 17).

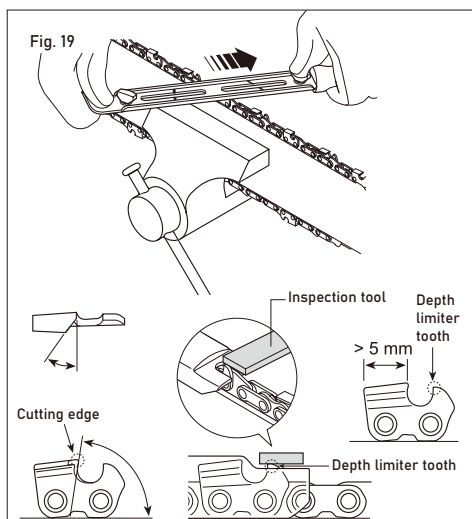
WARNING! To ensure that the saw works safely and efficiently, it is essential that the cutting components are well-sharpened. **It is highly recommended to replace the chain once it loses its ability to cut cleanly and safely.** It is possible, however, to sharpen the existing chain if the sharpening is carefully performed. Any work on the chain and bar requires specific experience and special tools.

Sharpening is necessary when:

- The sawdust looks like dust
- Cutting becomes more difficult
- The cut is not straight
- Vibrations increase

Sharpen the chain as follows (Fig. 19):

- Secure the bar firmly, with the chain mounted, in a suitable vise.
 - Tighten the chain if it is loose.
 - Mount the file in the guide and then insert it in the tooth at a constant angle from the cutting edge.
 - Sharpen in a forward motion a few times and repeat this on all the cutting edges facing the same way (right or left).
 - To move the chain forward, use a screwdriver.
 - Turn the bar over in the vise and repeat on all the other cutting edges.
 - Check that the depth limiter tooth does not stick out farther than the inspection tool and file any projecting parts with a flat file, rounding off the edges (Fig. 19).
 - After sharpening, remove all traces of filing and dust and lubricate the chain in an oil bath.
- Replace the chain whenever:
- The length of the cutting edges decreases to 5 mm or less
 - There is too much play between the links and the rivets



Guide Bar Maintenance

When the guide bar shows signs of wear, turn it over on the saw to distribute the wear for maximum bar life. Feathering or burring of the bar rails is a normal process of bar wear. You should smooth such faults with a file as soon as they occur.

Replace a bar with any of the following faults:

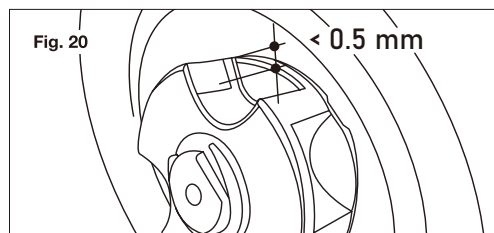
- wear inside the bar rails permitting the chain to lay over sideways
- bent guide bar
- cracked or broken rails
- spread rails

Turn the saw over, check the underside of the guide bar, and make sure that the lubrication holes and chain groove are free from impurities.

Chain Sprocket

Regularly check the condition of the sprocket and replace it when wear exceeds 0.5 mm (Fig. 20).

Do not mount a new chain with a worn sprocket or vice-versa.



Chain Maintenance Table

Drive Links	Chain Pitch		Chain Gauge		File Diameter	
27	inches	mm	inches	mm	inches	mm
	0.3	7.62	0.043	1.1	0.138	3.5

TROUBLESHOOTING

Most difficulties are easy to fix. Consult the troubleshooting table for common problems and their solutions.



WARNING! Always remove the battery before performing any adjustments, maintenance, or repairs to your cordless mini chainsaw.

Problems	Corrective Action
The saw motor fails to start	<ul style="list-style-type: none"> • Make sure that the battery is inserted correctly • Check charge status and recharge the battery • Make sure chain/sprocket end cover is assembled correctly.
The saw stops during operation	<ul style="list-style-type: none"> • Make sure that the battery is inserted correctly • Check charge status and recharge the battery • The machine is overloaded
The saw runs, but the chain speed is low	<ul style="list-style-type: none"> • The chain is too tight; re-tension.
Bar and chain running hot and smoking	<ul style="list-style-type: none"> • The chain tension is too tight; re-tension. • The chain needs to be lubricated: lubricate the chain with the oil.
The saw motor runs, but the chain is not turning	<ul style="list-style-type: none"> • The chain tension is too tight; re-tension. • The guide bar or chain is damaged; inspect and replace the damaged part.

WARRANTY

Ningbo Winbay Technology Co.,Ltd. (Hereinafter referred to as Babytec) warrants this product against defects in materials and/or workmanship under normal use for a period of ONE (1) YEAR from the date of purchase by the original purchaser ('Warranty Period').

The following circumstances are excluded from this guarantee:

- Repairs and or alterations have been made or attempted to the machine by unauthorized service centers;
- Normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- Non-original spare parts have been used.

If a defect arises and a valid claim is received within the Warranty Period, at its option, Babytec will either 1) repair the defect at no charge, using new or refurbished replacement parts, or 2) replace the product with a new product that is at least functionally equivalent to the original product, or provide a store credit in the amount of the purchase price of the original product. A replacement product or part, including a part installed in accordance with instructions product by Babytec, assumes the remaining warranty of the original product. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Babytec's property. When a store credit is given, the original product must be returned to Babytec and becomes Babytec's property.

To obtain warranty service, e-mail Babytec Warranty Service at afterservice@snapfreshpro.com.

Please be prepared to describe the product that needs service and the nature of the problem.

To extend your warranty, please register at snapfreshpro.vip

 +1 833 635 0955

(Monday - Friday 9 a.m. - 5 p.m. EST 6 a.m. - 2 p.m. PST)

