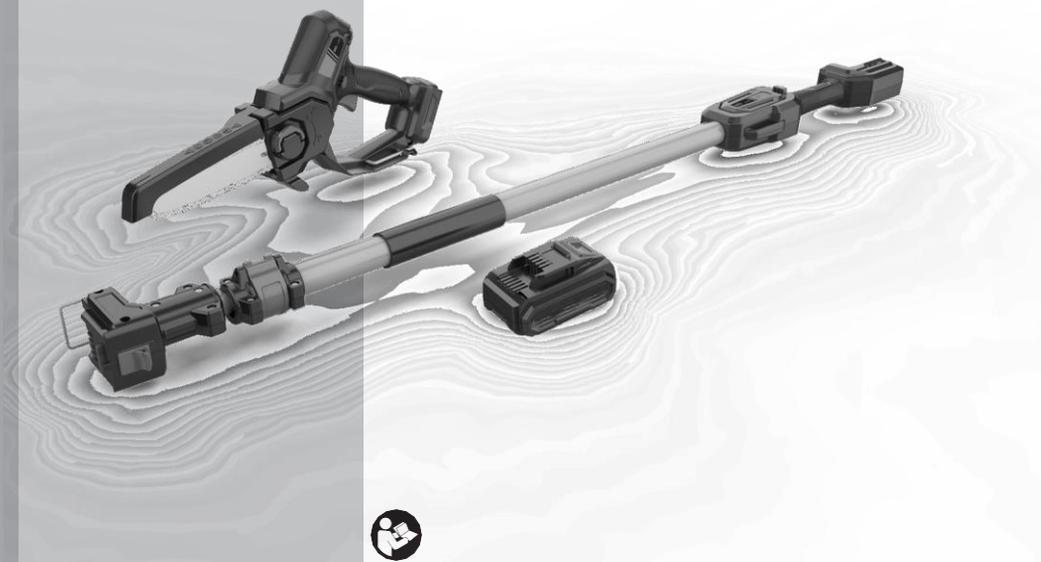


LITTLE BEAVER

INSTRUCTION MANUAL

Cordless Pruning Saw :DUETRP-20V-4AH

Saw with Pole : DUEPTP-20V-4AH

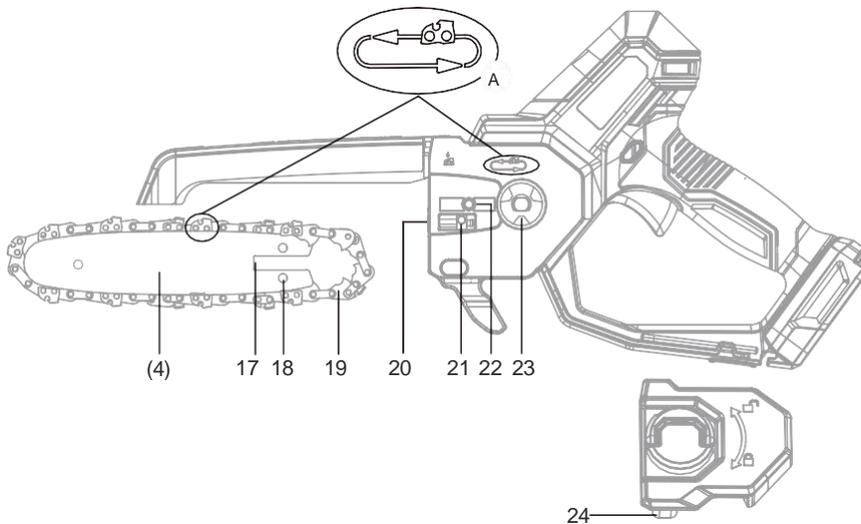


Use the product to cut branches and twigs. Do not use the product for other tasks.

If the sawing chain is running dry, the guide rail and sawing chain are rendered unusable within a short time.

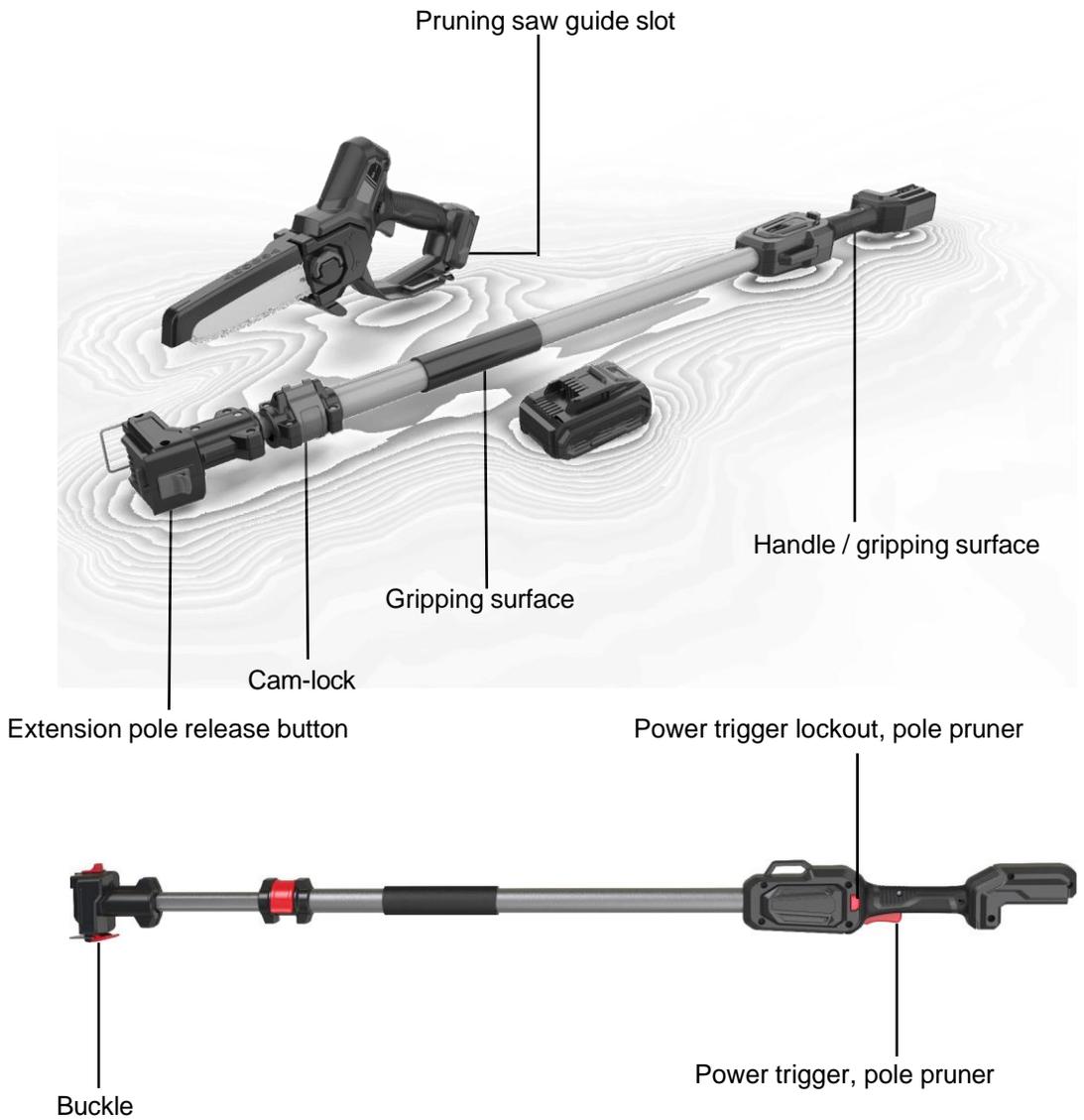
Never work without chain lubrication! After about 20 cuts, the chain lubrication must be renewed.

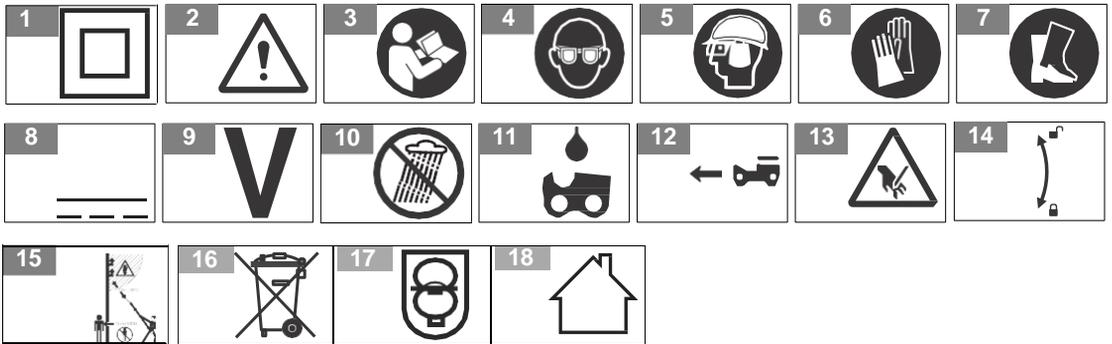
Product overview



- | | |
|---|--|
| 1 Transport guard | 13 Capacity indicator button * |
| 2 Saw chain guard | 14 Hex key (to set the chain tension) / storage |
| 3 Guide | 15 Power trigger lockout, pruner |
| 4 Guide bar | 16 Power trigger, pruner |
| 5 Areas in which the Bio sawing chain adhesive oil is applied | 17 Guide rail slot |
| 6 Locking knob for protective cover | 18 Bore |
| 7 Chain wheel protective cover | 19 Sawing chain |
| 8 Gripping surface (for left hand) | 20 Clamping screw (chain tension) |
| 9 Handle / gripping surface (for right hand) | 21 Chain tensioning pin |
| 10 Battery pack release button | 22 Stud bolt |
| 11 Battery pack * | 23 Chain wheel |
| 12 Capacity and signal indicator * | 24 Chain catch |

Product overview





Symbols on the product

- (Fig. 1) Double insulation.
- (Fig. 2) **WARNING:** This product can be dangerous and cause serious injury or death to the operator or others. Be careful and use the product correctly.
- (Fig. 3) Read the operator's manual carefully and make sure that you understand the instructions before you use the product.
- (Fig. 4) Use approved eye protection.
- (Fig. 5) Use a protective helmet in locations where objects can fall on you. Use approved hearing protection. Use approved eye protection.
- (Fig. 6) Use approved protective gloves.
- (Fig. 7) Use heavy-duty slip-resistant boots. (Only applicable for the pole pruner.)
- (Fig. 8) Direct current.
- (Fig. 9) Rated voltage, V
- (Fig. 10) Do not expose to rain.
- (Fig. 11) Chain oil fill.
- (Fig. 12) Direction of rotation, saw chain.
- (Fig. 13) Risk of injury. Keep hands away from saw chain.
- (Fig. 14) Turn left to loose the knob, turn right to tighten the knob.

- (Fig. 15) This product is not electrically insulated. If the product touches or comes close to high-voltage power lines it could lead to death or serious injury. Electricity can jump from one point to another by arcing. The higher the voltage, the greater the distance electricity can jump. Electricity can also travel through branches and other objects, especially if they are wet. Always keep a distance of at least 10m between the product and high-voltage power lines and/or any objects that are touching them. If you have to work within this safe distance you should always contact the relevant power company to make sure the power is switched off before you start work.

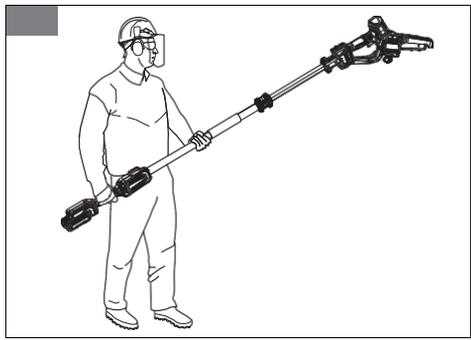
The operator of the product must ensure, while working, that no persons or animals come closer than 15 meters. (Only applicable for the pole pruner.)

- (Fig. 16) The product or package of the product is not domestic waste. Recycle it at a recycling station for electrical and electronic equipment.

Symbols on the battery and/or on the battery charger

- (Fig. 17) Fail-safe transformer.
- (Fig. 18) Use and keep the battery charger indoors only.

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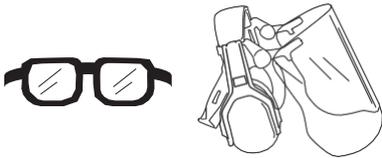
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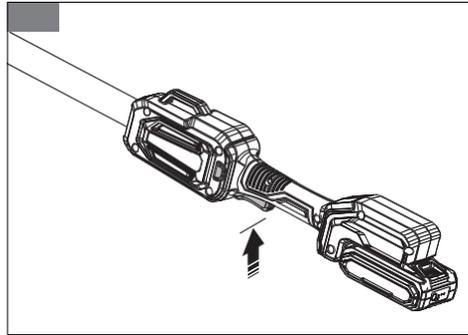
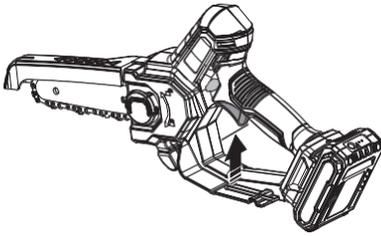
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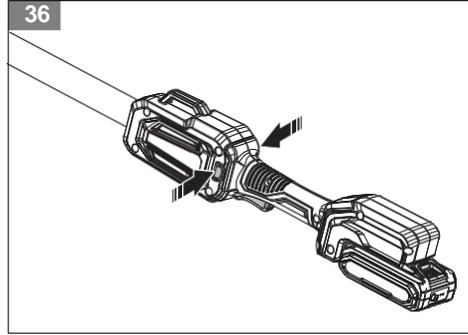
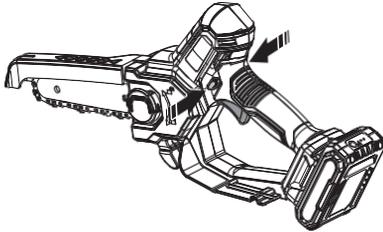
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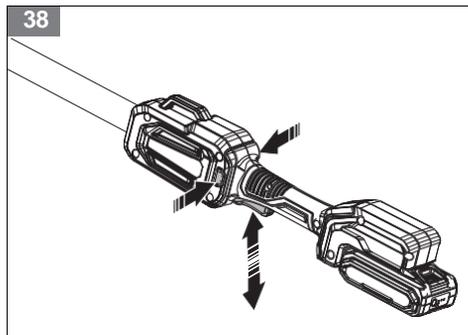
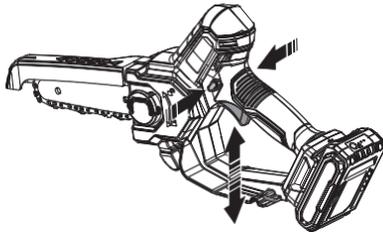
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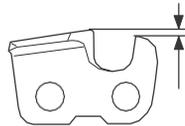
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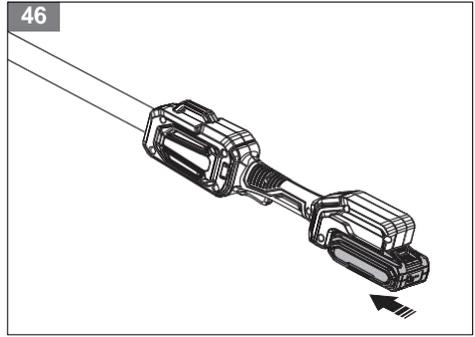
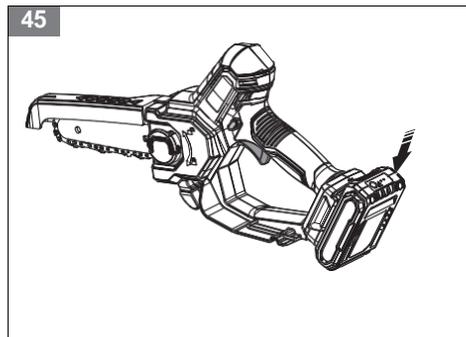
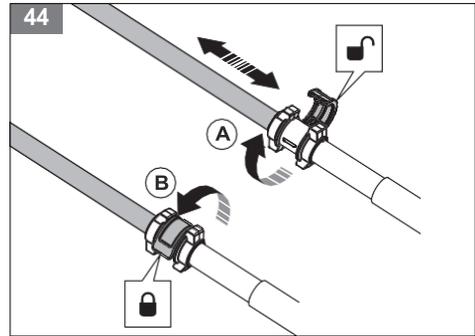
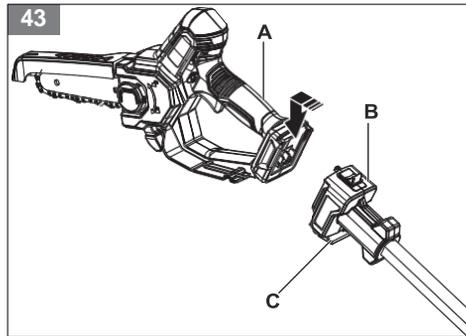
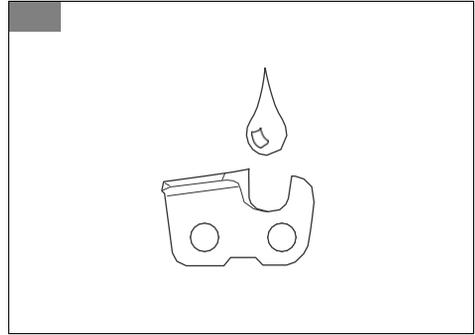
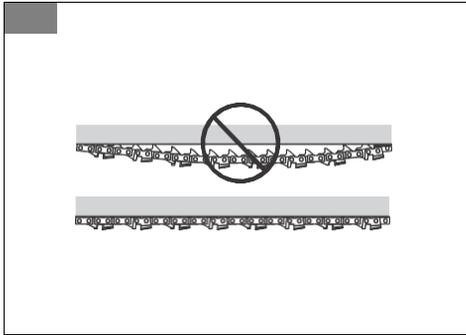


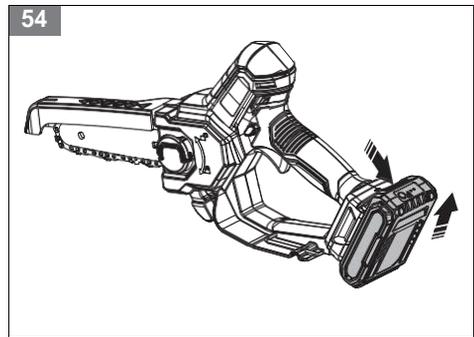
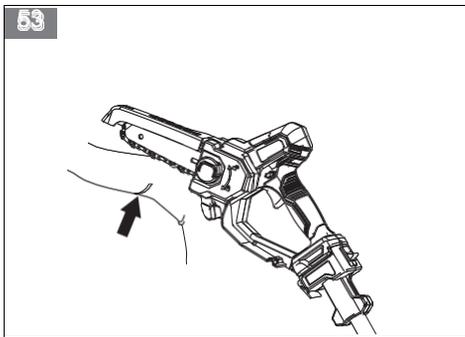
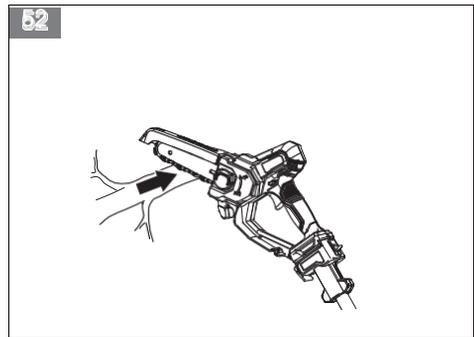
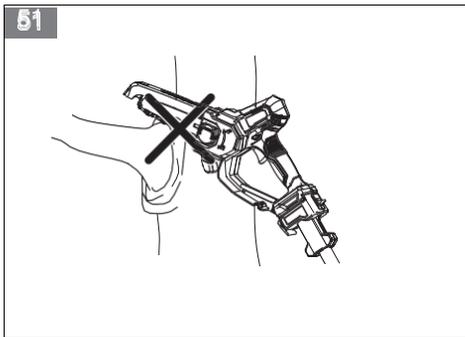
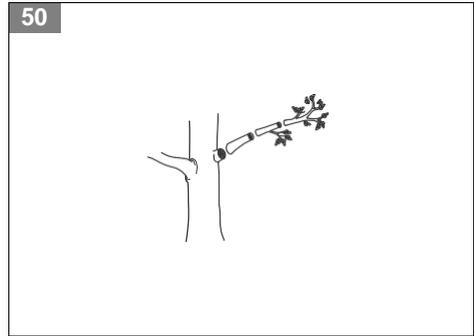
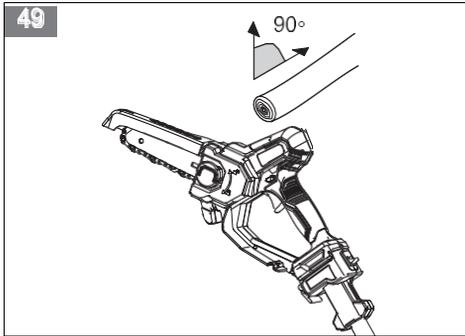
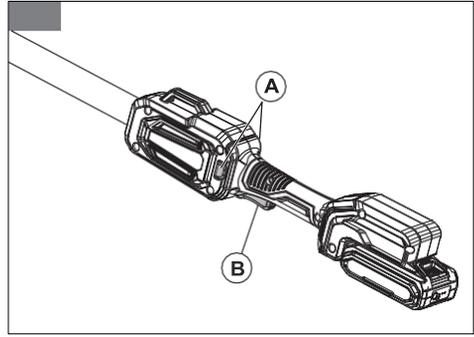
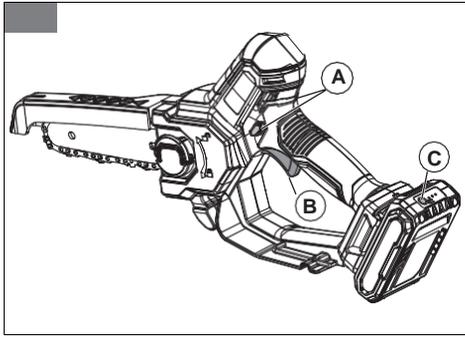
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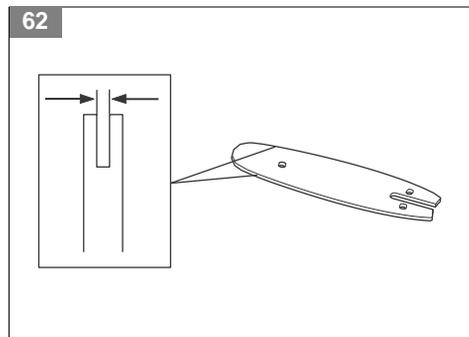
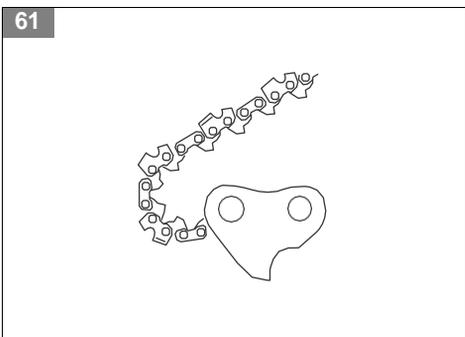
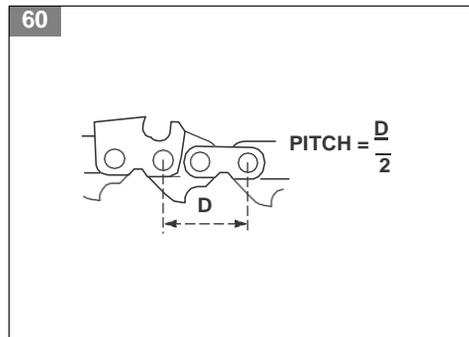
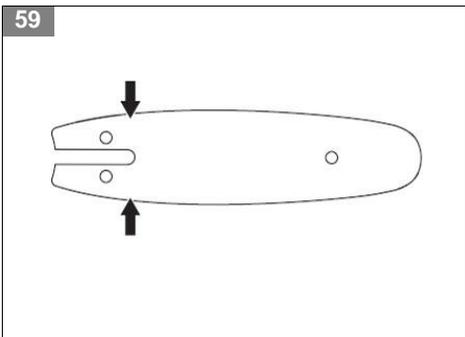
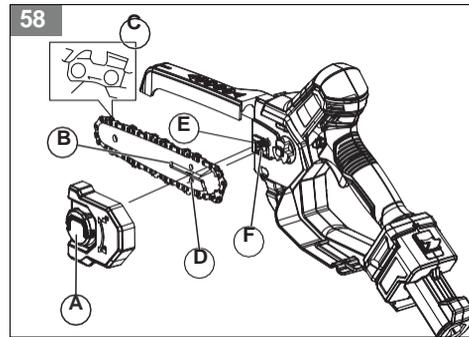
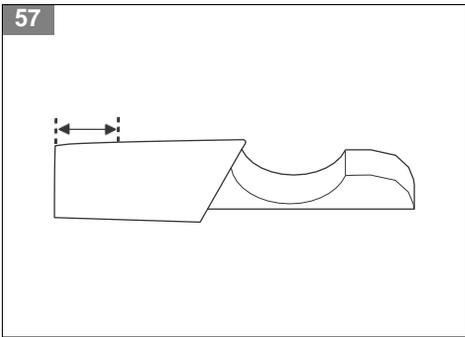
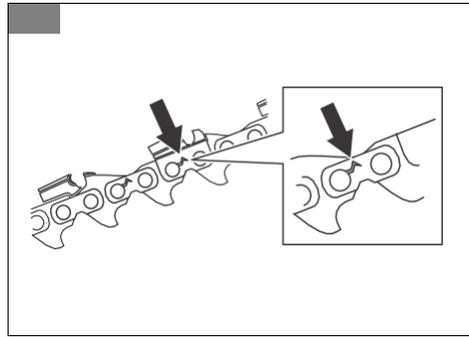
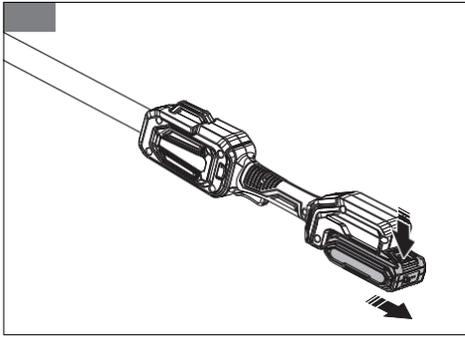


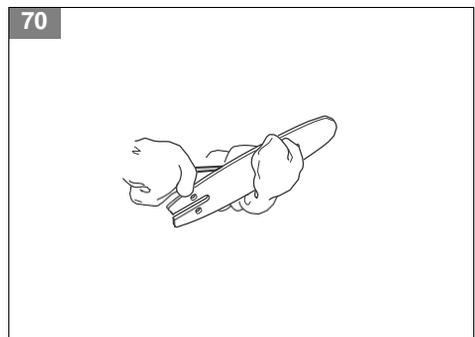
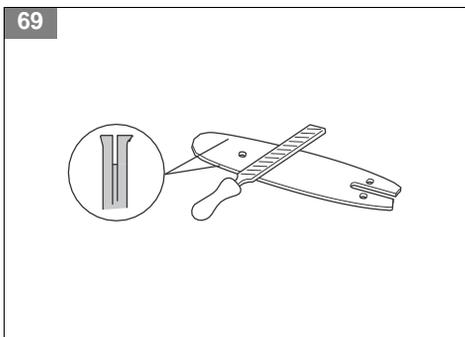
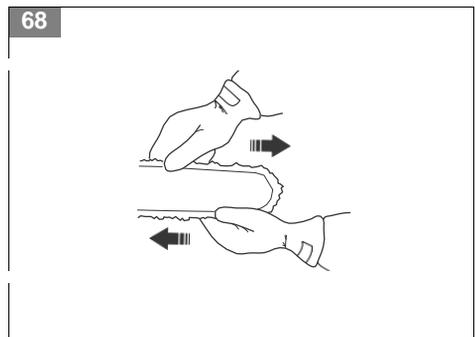
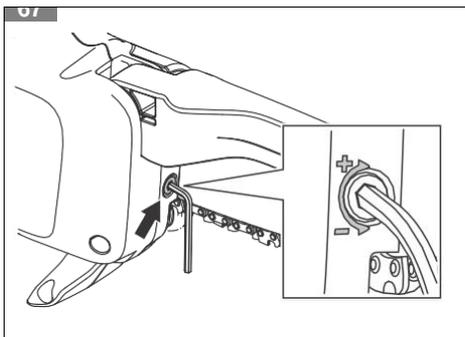
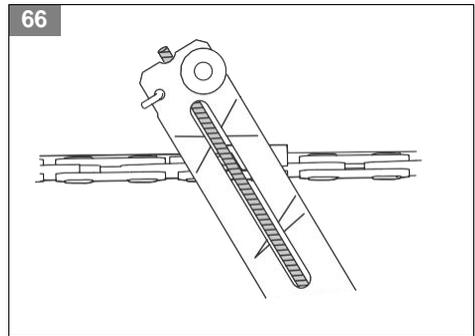
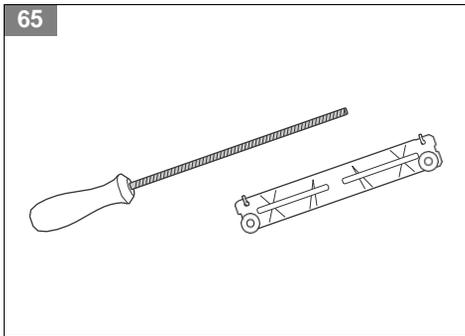
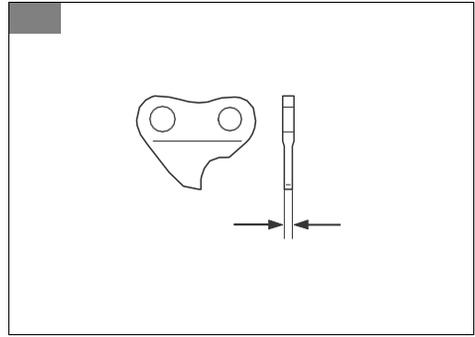
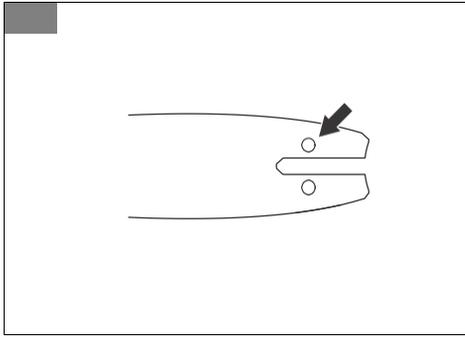
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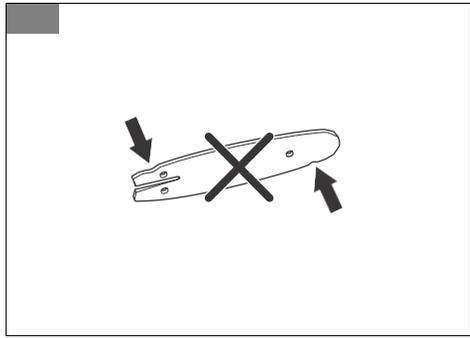




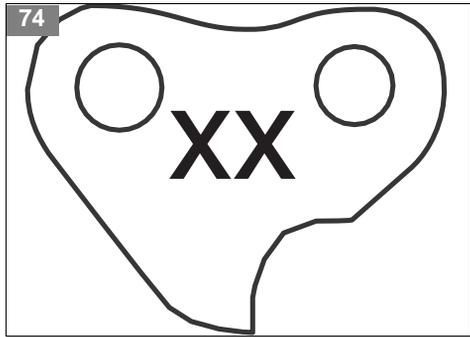
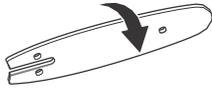




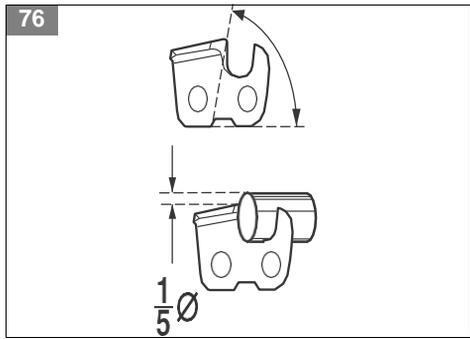
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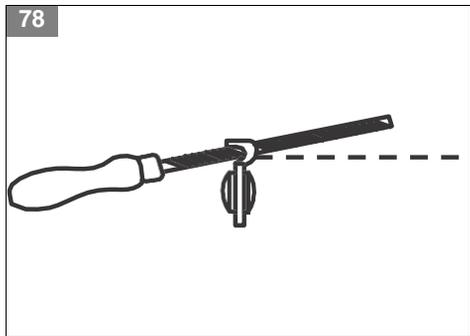
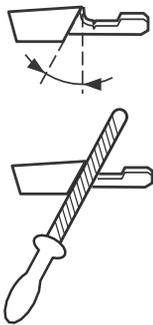
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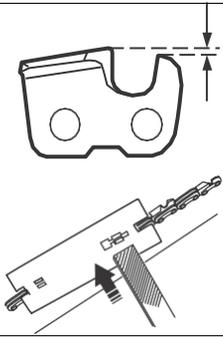
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Safety

Safety definitions

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

WARNING: Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.

CAUTION: Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

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

General power tool safety warnings

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

Note: Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

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 ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

Personal safety

- **Danger! Do not operate near electrical power lines.** The unit has not been designed to provide protection from electric shock in the event of contact with overhead electric lines. Consult local regulations for safe distances from overhead electric power lines and ensure that the operating position is safe and secure before operating the saw chain pole pruner.
- **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 a power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising 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.

- **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.
- The vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used. Operators should identify safety measures to protect themselves that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger).

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 plug from the power source and/or 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 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 do not allow for safe handling and control of the tool in unexpected situations.

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 contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritations or burns.
- **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour 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 130 °C / 265 °F 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.

Pole pruner saw safety warnings - personal safety

- **Keep all parts of the body away from the saw chain when the pole pruner saw is operating. Before you start the pole pruner saw, make sure the saw chain is not contacting anything.** A moment of inattention while operating pole pruners saws may cause entanglement of your clothing or body with the saw chain.
- **Always hold the pole pruner saw with your right hand on the control handle and your left hand on the auxiliary handle.** Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- **Hold the pole pruner saw by insulated gripping surfaces only, because the saw chain may contact hidden wiring.** Saw chains contacting a "live" wire may make exposed metal parts of the pole pruner saw "live" and could give the operator an electric shock.
- **Wear eye protection. Further protective equipment for hearing, head, hands, legs and feet is recommended.** Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.

- **Do not operate a pole pruner saw in a tree, on a ladder, from a rooftop, or any unstable support.** Operation of a pruner saw in this manner could result in serious personal injury.
- **Always keep proper footing and operate the pole pruner saw only when standing on fixed, secure and level surface.** Slippery or unstable surfaces may cause a loss of balance or control of the pruner saw.
- **When cutting a branch that is under tension, be alert for spring back.** When the tension in the wood fibres is released, the spring loaded branch may strike the operator and/or throw the pole pruner saw out of control.
- **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped toward you or pull you off balance.
- **Carry the pole pruner saw with the pole pruner saw switched off and away from your body.** When transporting or storing the pole pruner saw, always fit the guide bar cover. Proper handling of the pole pruner saw will reduce the likelihood of accidental contact with the moving saw chain.
- **Follow instructions for lubricating, chain tensioning and changing the bar and chain.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- **Cut wood only. Do not use pole pruner saw for purposes not intended. For example: do not use pole pruner saw for cutting metal, plastic, masonry or non-wood building materials.** Use of the pole pruner saw for operations different than intended could result in a hazardous situation.
- **This pole pruner saw is not intended for tree felling.** Use of the pole pruner saw for operations different than intended could result in serious injury to the operator or bystanders.
- **Follow all instructions when clearing jammed material, storing or servicing the pole pruner. Make sure the switch is off and the battery pack is removed.** Unexpected actuation of the pole pruner while clearing jammed material or servicing may result in serious personal injury.
- **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.
- **Keep handles dry, clean and free from oil and grease.** Greasy, oily handles are slippery causing loss of control.
- We strongly recommend that first time users practice sawing logs on a saw horse or cradle.
- Remove the battery to prevent the product from being started by accident.
- This product is a dangerous tool if you are not careful or if you use the product incorrectly. This product can cause serious injury or death to the operator or others.
- Do not use the product if it is changed from its initial specification. Do not change a part of the product without approval from the manufacturer. Only use parts that are approved by the manufacturer. Injury or death is a possible result of incorrect maintenance.
- Do a check of the product before use. Do not use a defective product. Do the safety checks, maintenance and service instructions described in this manual.
- Children should be supervised to ensure that they do not play with the product. Never allow children or other persons not trained in the use of the product and/or the battery to use or service it. Local laws may regulate the age of the user.
- Keep the product in a locked area to prevent access for children or persons that are not approved.
- Store the product out of reach of children.
- Under no circumstances may the design of the product be modified without the permission of the manufacturer. Always use original accessories. Non-authorized modifications and/or accessories can result in serious personal injury or the death of the operator and others.

Note: National or Local laws can regulate the use. Comply to given regulations.

Safety instructions for operation

WARNING: Read and obey the warning instructions that follow before you use the product.

- Ensure that no people or animals come closer than 15 m (50 ft.) while you work. When several operators are working in the same area the safety distance should be at least 15 m. Otherwise there is a risk of serious personal injury. Stop the product immediately if anyone approaches. Never swing the product around without first checking behind you to make sure that no one is within the safety zone.
- Never use the product in bad weather, for instance in dense fog, in heavy rain, strong winds, intense cold, etc. Extremely hot weather may cause overheating of the product. Working in bad weather is tiring and often brings added risks, such as icy ground, unpredictable felling direction, etc.
- Do not allow children to use or be in the vicinity of the product. Since the product is easy to start, children may be able to start it if they are not kept under full surveillance. This can mean a risk of

General safety instructions

WARNING: Read the warning instructions that follow before you use the product.

serious personal injury. Disconnect the battery when the product is not under close supervision.

- Ensure that people, animals or other things can not affect your control of the product or that they do not come in contact with the cutting attachment or loose objects that are thrown out by the cutting attachment.
- Listen out for warning signals or shouts when you wear hearing protection. Always remove your hearing protection as soon as the product stops.
- Overexposure to vibration can lead to circulatory damage or nerve damage in persons who have poor circulation. Speak to your physician if you experience symptoms of overexposure to vibration. Such symptoms include numbness, loss of feeling, tingling, pricking, pain, loss of strength, changes in skin colour or condition. These symptoms usually show in the fingers, hands or wrists.
- Never use a cutting attachment without an approved guard. If an incorrect or faulty guard is fitted this can cause serious personal injury.
- Always stop the product, remove the battery and make sure that the cutting equipment stops completely before you start to do any work on the product. Departure from the sharpening instructions considerably increase the risk of kickback.
- If you encounter a situation where you are uncertain how to proceed you should ask an expert. Contact your dealer or your service workshop. Avoid all usage which you consider to be beyond your capability.
- Avoid all usage which you consider to be beyond your capability.
- Never use the product if you are fatigued, while under the influence of alcohol or drugs, medication or anything that could affect your vision, alertness, coordination or judgment.
- The product can be thrown violently to the side when the tip of the guide bar comes in contact with a fixed object. This is called kickback. A kickback can be violent enough to cause the product/operator to be propelled in any direction, and possibly lose control of the product. Avoid cutting with the guide bar tip.
- Do not use the product unless you are able to call for help in case of an accident.
- Keep a good balance and a firm foothold. Make sure that you can move and stand safely. Check the area around you for possible obstacles (roots, rocks, branches, ditches, etcetera) in case you have to move suddenly. Take great care when you work on sloping ground.
- Take great care when cutting a tree that is in tension. A tree that is in tension may spring back to its normal position before or after being cut. If you position yourself incorrectly or make the cut in the wrong place the tree may hit you or the product and cause you to lose control. Both situations can cause serious personal injury.
- Use the harness to support the weight of the product and make it easier to handle.

- For DUETRP-20V-4AH: Hold the product with your right or left hand. Keep hands and other body parts away from the saw chain.

(Fig. 27)

- For DUEPTP-20V-4AH: Always hold the product with both hands. Hold the product on the right side of your body.

(Fig. 28)

- Before you remove unwanted materials from the product, stop the motor and make sure that the saw chain does not turn.
- Stop the product before you move to another area. Attach the transport guard before carrying or transporting the product any distance.
- Never put the product down when it is activated unless you have it in clear sight.
- If the product is operated at temperatures below -10°C the product and the battery must be stored in a heated space for at least 24 hours before starting work.
- Never stand directly under underneath a branch that is being cut. This could lead to serious or even fatal personal injury.
- Observe the applicable safety regulations for work in the vicinity of overhead power lines.
- This product is not electrically insulated. If the product touches or comes close to high-voltage power lines it could lead to death or serious bodily injury. Electricity can jump from one point to another by arcing. The higher the voltage, the greater the distance electricity can jump. Electricity can also travel through branches and other objects, especially if they are wet. Always keep a distance of at least 10 m between the product and high voltage power lines and/or objects that are touching them. If you have to work within this safe distance you should always contact the relevant power company to make sure the power is switched off before you start work.
- A dull saw chain may increase the risk of accidents.

Personal protective equipment

WARNING: Read the warning instructions that follow before you use the product.

- Always use approved personal protective equipment when you use the product. Personal protective equipment cannot fully prevent injury but it decreases the degree of injury if an accident does occur. Let your dealer help you select the right equipment.
- Use a helmet if it is possible that objects can fall on you.

(Fig. 27)

- Use approved hearing protection.

(Fig. 28)

- Use approved eye protection. If you use a visor, you must also use approved protective goggles. Approved protective goggles must agree with the ANSI Z87.1 standard in the USA or EN 166 in EU countries.

(Fig. 29)

- Use gloves when it is necessary, for example when you attach, examine or clean the cutting equipment.

(Fig. 30)

- Use protective boots, or shoes, with non-slip soles.

(Fig. 31)

- Use pants with saw protection.
- Use clothing made of a strong fabric. Always use heavy, long pants and long sleeves. Do not use loose clothing that can catch on twigs and branches. Do not wear jewelry, short pants, open shoes or go with bare feet. Put your hair up safely above your shoulders.
- Keep first aid equipment close at hand.

(Fig. 32)

Safety devices on the product

WARNING: Read the warning instructions that follow before you use the product.

In this section the product's safety features, its purpose and how checks and maintenance should be carried out to ensure that it operates correctly. See instructions under the heading *Product overview on page 2-3* to find where these parts are located on your product.

The life span of the product can be reduced and the risk of accidents can increase if product maintenance is not carried out correctly and if service and/or repairs are not carried out professionally. If you need further information please contact your nearest servicing dealer.

WARNING: Never use a product with defective safety components. The product's safety equipment must be inspected and maintained as described in this section. If your product fails any of these checks, contact your service agent to get it repaired.

CAUTION: All servicing and repair work on the machine requires special training. This is especially true of the machine's safety equipment. If your machine fails any of the checks described below you must contact your service agent. When you buy any of our products we guarantee the availability of professional repairs and service. If the retailer who sells your machine is not a servicing dealer, ask him

for the address of your nearest service agent.

To do a check of the power trigger lockout

The power trigger lockout prevents accidental operation. When you release the handle, the power trigger and the power trigger lockout move back to their initial position.

1. Make sure that the power trigger is locked when the power trigger lockout is in its initial position.
 - a) For DUETRP-20V-4AH: (Fig. 33)
 - b) For DUEPTP-20V-4AH: (Fig. 34)
2. Push the power trigger lockout on one side, and then on the other side. Make sure that the power trigger lockout moves back to its initial position.
 - a) For DUETRP-20V-4AH: (Fig. 35)
 - b) For DUEPTP-20V-4AH: (Fig. 36)
3. Make sure that the power trigger and the power trigger lockout move freely and that the return spring operates correctly.
 - a) For DUETRP-20V-4AH: (Fig. 37)
 - b) For DUEPTP-20V-4AH: (Fig. 38)
4. Start the product, refer to *Operation on page 20*.
5. Apply full speed.
6. Release the power trigger and make sure that the saw chain stops fully.

Safety instructions for the cutting equipment

WARNING: Read the warning instructions that follow before you use the product.

- Only use approved guide bar/saw chain combinations and filing equipment.
- Use protective gloves when you use or do maintenance on the saw chain. A saw chain that does not move can also cause injuries.

- Keep the cutting teeth correctly sharpened. Obey the instructions and use the recommended file gauge. A saw chain that is damaged or incorrectly sharpened increases the risk of accidents.

(Fig. 39)

- Keep the correct depth gauge setting. Obey the instructions and use the recommended depth gauge setting. Too large depth gauge setting increases the risk of kickback.

(Fig. 40)

- Make sure that the saw chain has the correct tension. If the saw chain is not tight against the guide bar, the saw chain can derail. An incorrect saw chain tension increases wear on the guide bar, saw chain and chain drive sprocket.

(Fig. 41)

- Do maintenance on the cutting equipment regularly and keep it correctly lubricated. Lubricate the saw chain before each operation. If the saw chain is not correctly lubricated, the risk of wear on the guide bar, saw chain and chain drive sprocket increases.

(Fig. 42)

Battery safety

WARNING: Read all the safety and general instructions. Failure to observe the safety and general instructions may result in electric shock, fire and / or serious injury. **Keep all the safety information and general instructions for future reference.**

- Use the rechargeable battery only in products from the manufacturer.
- Observe the battery recommendations in the operating manual of your product. Only this way can the rechargeable battery and the product be operated without danger and the rechargeable batteries protected from hazardous overloading.
- Only charge the batteries using chargers recommended by the manufacturer.
- The battery is supplied partially charged. To ensure full battery capacity, fully charge the battery in the charger before using your power tool for the first time.

- Keep battery packs out of the reach of children.
- Do not open the battery. There is a risk of shortcircuiting.
- In case of damage and improper use of the battery, vapours may be emitted. The battery can set alight or explode. Ensure the area is well ventilated and seek medical attention should you experience any adverse effects. The vapours may irritate the respiratory system.
- If used incorrectly or if the battery is damaged, flammable liquid may be ejected from the battery. Contact with this liquid should be avoided. If contact accidentally occurs, rinse off with water. If the liquid comes into contact with your eyes, seek additional medical attention. Liquid ejected from the battery may cause irritation or burns.
- If the battery is damaged liquid can be ejected and cover nearby surfaces. Check affected parts. Clean these parts or change them if necessary.
- Do not short-circuit the battery pack. 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.
- The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally. An internal short circuit may occur, causing the battery to burn, smoke, explode or overheat.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.
- Protect the battery against heat, e. g. against continuous intense sunlight, fire, dirt, water and moisture. There is a risk of explosion and short-circuiting.
- Use the battery in the product only when the ambient temperature is between -10 °C – 40 °C.
- Only store the battery at an ambient temperature between 0 °C – 40 °C. Do not leave the battery in your car in the summer, for example. At temperatures of < 0 °C some devices may experience a loss of power.
- Only charge the battery at an ambient temperature which is between 5 °C – +35 °C.

Battery charger safety

WARNING: Read all the safety and general instructions. Failure to observe the safety and general instructions may result in electric shock, fire and / or serious injury. **Store these instructions in a safe place.** Only use the charger if you can fully evaluate all functions and carry them out without restrictions, or if you have received corresponding instructions.

- **Supervise children during use, cleaning and maintenance.** This will ensure that children do not play with the charger.
- **The battery voltage must match the battery charging voltage of the charger. Do not charge any nonrechargeable batteries.** Otherwise there is a risk of fire and explosion.
- **Do not expose the charger to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Keep the charger clean.** Dirt poses a risk of electric shock.
- **Always check the charger, cable and plug before use. Stop using the charger if you discover any damage. Do not open the charger yourself, and have it repaired only by a qualified specialist using only original replacement parts.** Damaged chargers, cables and plugs increase the risk of electric shock.
- **Do not operate the charger on an easily ignited surface (e. g. paper, textiles, etc.) or in a flammable environment.** There is a risk of fire due to the charger heating up during operation.
- **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.
- **In case of damage and improper use of the battery, vapours may also be emitted.** Ensure the area is well ventilated and seek medical attention should you experience any adverse effects. The vapours may irritate the respiratory system.
- **Under abusive conditions, liquid may be ejected from the battery. Contact with this liquid should be avoided. If contact accidentally occurs, rinse off with water. If the liquid comes into contact with your eyes, seek additional medical attention.** Liquid ejected from the battery may cause irritation or burns.
- **Do not cover the ventilation slots of the charger.** Otherwise, the charger may overheat and no longer function properly.

WARNING: Cardiac arrest! This product makes an electromagnetic field while it operates. This field may under some conditions interfere with active or passive medical implants. To decrease the risk of conditions that can possibly injure or kill, we recommend persons with medical implants to speak with their physician and the medical implant manufacturer before you operate the product.

WARNING: Risk of suffocation! Small parts can be easily swallowed. There is also a risk that the polybag can suffocate toddlers. Keep toddlers away when you assemble the product.

Safety instructions for maintenance

WARNING: Read the warning instructions that follow before you do maintenance on the product.

- Remove the battery before you do maintenance, other checks or assemble the product.
- The operator must only do the maintenance and servicing shown in this operator's manual. Turn to your servicing dealer for maintenance and servicing of a larger extension.
- Do not clean the battery or the battery charger with water. Strong detergent can cause damage to the plastic.
- If you do not do maintenance, it decreases the life cycle of the product and increases the risk of accidents.
- Special training is necessary for all servicing and repair work, especially for the safety devices on the product. If not all checks in this operator's manual are approved after you have done maintenance, turn to your servicing dealer. We guarantee that there are professional repairs and servicing available for your product.
- Only use original spare parts.

Assembly DUETRP-20V-4AH

Introduction

WARNING: Read and understand the safety chapter before you assemble the product.

To attach the pruner to the telescopic shaft

1. Align and insert the extension pole into the saw until an audible click is heard.
2. Hang the buckle on the hook of the saw. Press the Clamping Lever to tighten the extension pole to the machine. (Fig. 43)

Note: Make sure the extension pole is locked into position securely before operation

To remove the telescopic

Loosen the Clamping Lever to release the buckle. Press the Extension Pole Release Button to disconnect the extension pole with the saw

Note: WARNING! When using this machine with the Extension Pole, make sure that the battery pack has been removed.

To adjust the length of the telescopic shaft

To extend the pole assembly, lift the cam-lock and extend the pole to the desired length. Close the cam-lock to secure the pole in position. (Fig. 44)

Operation

To do a function check before you use the product

1. Examine the air intake for dirt and damage. Remove dirt and unwanted material from the product with a brush.
2. Tighten all nuts and screws.
3. Make sure that the pruner is attached correctly.
4. Examine the pruner for damages, for example, cracks. Replace pruner if it is damaged.
5. Make sure that the covers are attached correctly and not damaged.
6. Make sure that the product operates correctly.

To connect the battery to the product

WARNING: Only use Authorized lithium-ion batteries

1. Make sure that the battery is fully charged.
2. Put the battery into the battery holder of the product. The battery must move into the holder easily, if not, it is not installed correctly.
 - a) For DUETRP-20V-4AH: (Fig. 45)
 - b) For DUEPTP-20V-4AH: (Fig. 46)
3. Push the battery fully into the battery holder. The battery locks into position when you hear a click.
4. Make sure that the latch locks in position correctly.

To start the product DUETRP-20V-4AH

Push the power trigger lockout (A) from the left or the right side, and hold the power trigger (B). (Fig. 47)

To start the product DUEPTP-20V-4AH

Push the power trigger lockout (A) from the left or the right side, and hold the power trigger (B). (Fig. 48)

To cut branches

WARNING: Observe great care when working close to overhead power lines. Falling branches can result in short circuiting.

- Whenever possible, position yourself so that you can make the cut at right angles to the branch. (Fig. 49)
- Cut large branches in sections so that you have better control over where they fall. You should also pay attention to the fact that falling branches can bounce in the direction of the user after hitting ground. (Fig. 50)
- Never cut through the swelling at the root of the branch as this will slow down healing and increase the risk of fungal attack. (Fig. 51)
- Use the stop at the base of the cutting head to provide support during cutting. This will help prevent the cutting attachment from bouncing on the branch. (Fig. 52)
- Make an initial cut on the underside of the branch before cutting through the branch. This will prevent tearing of the bark, which could lead to slow healing and cause permanent damage to the tree. The cut should not be deeper than $\frac{1}{3}$ of the branch thickness to prevent jamming. Keep the chain running while you withdraw the cutting attachment from the branch to prevent it jamming. (Fig. 53)
- Make sure you have a firm footing and that you can work without being hampered by branches, stones and trees.

WARNING: Never activate the power trigger without having the cutting attachment in full view.

To stop the product DUETRP-20V-4AH

1. Release the power trigger.

2. Push the release button and pull out the battery. (Fig. 54)

To stop the product DUEPTP-20V-4AH

1. Release the power trigger.
2. Push the release button and pull out the battery. (Fig. 55)
3. If it is necessary, remove the telescopic shaft from the pruner.

Maintenance

Introduction

WARNING: Read and understand the safety chapter before you do maintenance work on the product.

WARNING: Remove the battery before you do maintenance on the product.

Maintenance schedule

Maintenance	Daily	Weekly	Monthly
Clean the external parts of the product with a dry cloth. Do not use water.	X		
Make sure that the power trigger and the power trigger lockout operate correctly from a safety point of view.	X		
Make sure that all controls operate correctly and are not damaged.	X		
Keep the handles dry and clean. Make sure that there is no oil and grease on the handles.	X		
Make sure that the saw chain cover is not damaged. Replace the saw chain cover if it is damaged.	X		
Make sure that the screws and nuts are tight.	X		
Make sure that the battery release buttons on the battery operate correctly and lock the battery in the product.	X		
Make sure that the battery charger operates correctly.	X		
Make sure that the battery is not damaged.	X		
Make sure that the battery is charged.	X		

Maintenance	Daily	Weekly	Monthly
Make sure that the battery charger is not damaged.	X		
Examine all cables, couplings and connections. Make sure that there is no damage or dirt.		X	
Clean the saw chain cover.		X	
Do a check of the connections between the battery and the product. Do a check of the connection between the battery and the battery charger.			X
Make sure that the pruner is not damaged. Replace the pruner if it is damaged.	An approved dealer must do all servicing on the pruner.		
Examine the wear of the chain drive sprocket.	Replace the chain drive sprocket after approximately 20 hours of operation or more frequently if it is necessary.		

To examine the cutting equipment

1. Make sure that there are no cracks in rivets and links and that no rivets are loose. Replace if it is necessary. (Fig.56)
2. Make sure that the saw chain is easy to bend. Replace the saw chain if it is rigid.
3. Compare the saw chain with a new saw chain to examine if the rivets and links are worn.
4. Replace the saw chain when the longest part of the cutting tooth is less than 4 mm/0.16 in. Also replace the saw chain if there are cracks on the cutters. (Fig. 57)

To replace the guide bar and the saw chain

1. Turn the locking knob counterclockwise and remove the protective cover (A). (Fig. 58)
2. Remove the guide bar with the saw chain attached.
3. Remove the saw chain from the guide bar.
4. Put a new saw chain in the groove of the guide bar.
5. Install the new guide bar with the groove (B) onto the bolt (E) and the hole (D) onto the guide bar pin (F).
6. Install the saw chain around the drive sprocket (G). Make sure that the cutting teeth point in the direction away from the drive sprocket (C).
7. Install the protective cover (A) and turn the locking knob clockwise.
8. Tighten the saw chain.

To sharpen the saw chain

Information about the guide bar and saw chain

WARNING: Use protective gloves when you use or do maintenance on the saw chain. A saw chain that does not move can also cause injuries.

Replace a worn or damaged guide bar or saw chain with the guide bar and saw chain combination recommended by the manufacturer. This is necessary to keep the safety functions of the product.

- Guide bar length, in/cm. Information about the guide bar length and chain type can usually be found on the rear end of the guide bar. (Fig. 59)
- Chain pitch, in. The distance between the drive links of the saw chain must align with the distance of the teeth on the bar tip sprocket and drive sprocket. (Fig. 60)
- Number of drive links. The number of drive links is decided by the type of guide bar. (Fig. 61)
- Bar groove width, in/mm. The groove width in guide bar must be the same as the chain drive links width. (Fig. 62)
- The guide bar must align with product. (Fig. 63)
- Drive link width, mm/in. (Fig. 64)

General information about how to sharpen the cutters

Do not use a blunt saw chain. If the saw chain is blunt, you must apply more pressure to push the guide bar through the wood. If the saw chain is very blunt, there will be no wood chips but sawdust.

A sharp saw chain eats through the wood and the wood chips becomes long and thick.

WARNING: The force of the kickback increases a lot if you do not follow the sharpening instructions.

To sharpen the cutters

1. Use a round file and a file gauge to sharpen the cutting teeth. (Fig. 65)
2. Apply the file gauge correctly on to the cutter. Refer to the instruction supplied with the file gauge.
3. Move the file from the inner side of the cutting teeth and out. Decrease the pressure on the pull stroke. (Fig. 66)
4. Remove material from one side of all the cutting teeth.
5. Turn the product around and remove material on the other side.
6. Make sure that all cutting teeth are the same length.

To adjust the tension of the saw chain

WARNING: A saw chain with an incorrect tension can come loose from the guide bar and cause serious injury or death.

A saw chain becomes longer when you use it. It is important to adjust the tension of the saw chain regularly to make sure that it is correct. Do a check of the tension of the saw chain before you operate the product. Tighten the saw chain as tightly as possible, but it must be possible to pull the saw chain around freely by hand.

Note: A new saw chain has a running-in period. Do a check of the tension more frequently during this period.

1. Turn the chain tension adjuster clockwise to tighten the saw chain. Apply as much tension to the saw chain as possible. It must be tight against the guide bar. (Fig. 67)

Note: Turn the adjuster up (+) for more tension and down (-) for less tension. The saw chain is tightened correctly when you can turn it easily by hand but it is tight against the guide bar.

2. Make sure that you can pull the saw chain around freely by hand and that it does not hang from the guide bar. (Fig. 79)

To lubricate cutting equipment

WARNING: Poor lubrication of cutting equipment may cause the chain to snap, which could lead to serious, even fatal injuries.

WARNING: Do not use waste oil! Waste oil is dangerous for persons, the product and for the environment.

Saw chain oil

- Use saw chain oil of good adherence to the saw chain. The saw chain oil must keep its viscosity in all weather, for example, during hot summer or cold winter.
- Use BIO chain oil for maximum saw chain life and to keep environmental damage to a minimum. If Husqvarna saw chain oil is not available, use a standard saw chain oil.
- In areas where oil for lubrication of saw chains is not available, use BIO chain oil.
- Make sure that the lubrication of the saw chain works correctly. Fill with saw chain oil and examine the saw chain lubrication if it is necessary.

To do a check of the guide bar

1. Examine if there are burrs on the edges of the guide bar. Remove the burrs using a file. (Fig. 69)
2. Clean the groove in the guide bar. (Fig. 70)
3. Examine the groove in the guide bar for wear. Replace the guide bar if it is necessary. (Fig. 71)
4. Examine if the guide bar tip is rough or very worn. (Fig. 72)
5. Turn the guide bar daily to extend its life cycle. (Fig. 73)

To clean the product, the battery and the battery charger

1. Clean the product with a dry cloth after use.
2. Clean the battery and battery charger with a dry cloth. Keep the battery guide tracks clean.
3. Make sure that the terminals on the battery and the battery charger are clean before use.
4. Clean the inner surface of the protective cover with a brush.

To examine the battery and the battery charger

1. Examine the battery for damages, for example cracks.
2. Examine the battery charger for damages, for example cracks.
3. Make sure that the connection cord of the battery charger is not damaged and that there are no cracks in it.

Troubleshooting

The following table gives checks and actions that you can perform if your machine does not operate correctly. If these do not identify/remedy the problem, contact your service agent.

 **WARNING:** Switch off and remove the battery pack before investigating fault.

Symptom	Possible Cause	Remedy
Chainsaw fails to operate	Out of battery.	Charge the battery pack.
	Fuse faulty.	Replace fuse.
Chainsaw operates intermittently	Over heating	Place the machine in a cool, ventilated place to cool it down
	Applying too much pressure while cutting.	Applying relatively less pressure while cutting
	Loose connection.	Contact service agent
	Internal wiring defective.	
On/off switch defective.		
Chain/chain bar over-heats	Chain is over tensioned	Adjust chain tension
	Dull chain	Sharpen chain or replace
Chainsaw rips, vibrates, does not saw properly	Chain tension too loose	Adjust chain tension
	Dull chain	Sharpen chain or replace
	Chain worn out	Replace chain
	Chain teeth are facing in the wrong direction	Reassemble with chain in correct direction

Transportation and storage

Transportation and storage

- The supplied Li-ion batteries obey the Dangerous Goods Legislation requirements.
- Obey the special requirement on package and labels for commercial transportation, including by third parties and forwarding agents.
- Speak to a person with special training in dangerous material before you send the product. Obey all applicable national regulations.
- Use tape on open contacts when you put the battery in a package. Put the battery in the package tightly to prevent movement.
- Remove the battery for storage or transportation.
- Put the battery and the battery charger in a space that is dry and free from moisture and frost.
- Do not keep the battery in an area where static electricity can occur. Do not keep the battery in a metal box.
- Put the battery in storage where the temperature is between 5°C/41°F and 25°C/77°F and away from open sunlight.
- Put the battery charger in storage where the temperature is between 5 °C/41 °F and 45°C/113°F and away from open sunlight.
- Use the battery charger only when the surrounding temperature is between 5°C/41°F and 40°C/104°F.
- Charge the battery 30% to 50% before you put it in storage for long periods.

- Put the battery charger in storage in a space that is closed and dry.
- Keep the battery away from the battery charger during storage. Do not let children and other not approved persons to touch the equipment. Keep the equipment in a space that you can lock.
- Clean the product and do a full servicing before you put the product in storage for a long time.
- Use the transportation guard on the product to prevent injuries or damage on the product during transportation and storage.
- Attach the product safely during transportation.

Disposal of the battery, battery charger and product

The symbol below means that the product is not domestic waste. Recycle it at a recycling station for electrical and electronic equipment. This helps to prevent damage to the environment and to persons.

Speak to local authorities, domestic waste service or your dealer for more information.

Note: The symbol shows on the product or package of the product.

Technical data

Technical data

	DUETRP-20V-4AH	DUEPTP-20V-4AH
Motor		
Type	20V d.c.	
Chain speed, m/sec	4.9	
Charing Time	up to 160 min	
Run Time	up to 80 min	
Protection	IPX1	
Battery Charger		
Model No	DUACHG1-20V-2AH/4A	
Rating	input:100-240V 50/60Hz 45W max output:21V 1.5A 34W max	
Protection	IPX4	
Battery		
Model No	DUABAT-20V-4AH	
Technical data	20V 4Ah 80Wh	
Protection	IPX0	

Accessories

Guidebar and saw chain combinations

Guide bar			Saw chain	
Length, inch	Pitch, inch	Gauge, mm	Type	Length, number of drive links
6	0.3"	1.1	30TLP	30

Saw chain filing and file gauge

Use the recommended file gauge to get the correct filing angles. We recommend you to always use the recommended file gauge to restore the sharpness of the saw chain.

If you do not know which saw chain you have on your product, speak to your servicing dealer.

(Fig. 74)	(Fig. 75)	(Fig. 76)	(Fig. 77)	(Fig. 78)	(Fig. 79)
	mm/in				mm/in
30TLP	4 / 0.16	60°	30°	0°	0.4/0.016