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User manual



Cordless Pole Chainsaw

MODEL NUMBER:
SERIAL NUMBER:

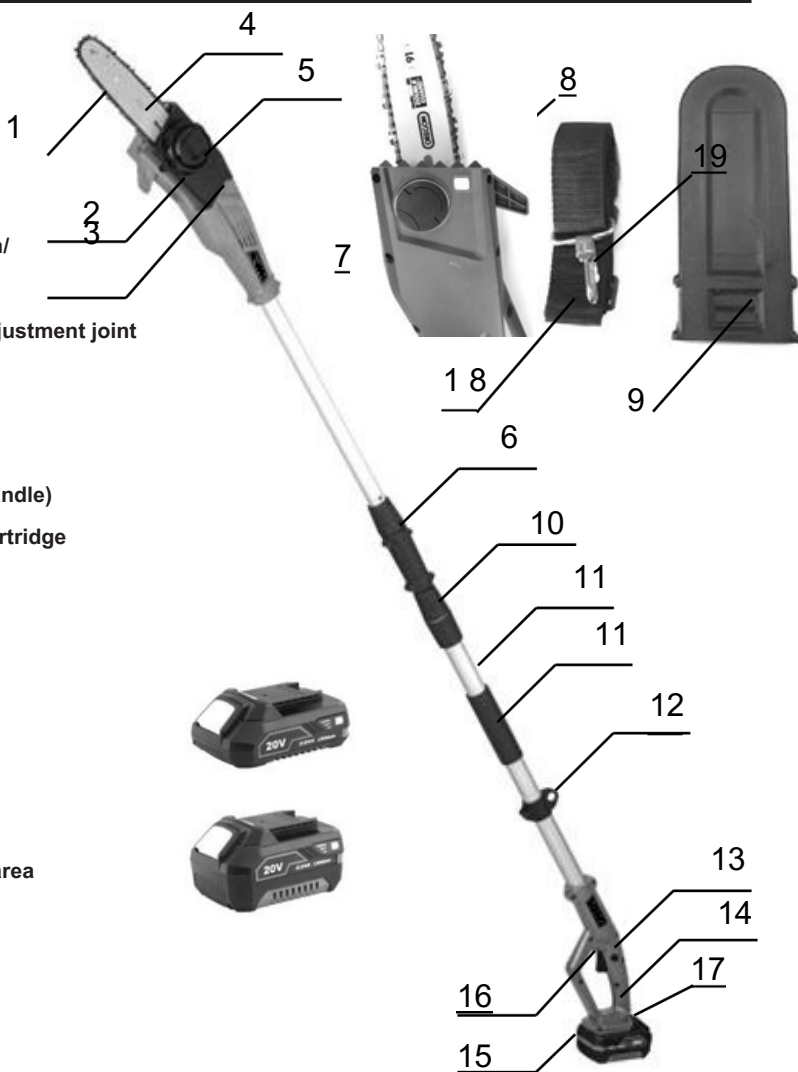
☐ CEDCPS20

Model number and serial number should be on nameplate.
You should write them down and store in a safe place.



IDENTIFICATION

- 1.Saw chain
- 2.Tension knob
- 3.Sprocket cover
- 4.Guid bar
5. Lever
- 6.Tool body Separation/
combination joint
- 7.Telescopic height adjustment joint
- 8.Soft sponge
9. Hanger
- 10.Lock-off lever
- 11.Soft handle(main handle)
- 12.Button of battery cartridge
- 13.Switch trigger
- 14.Battery cartridge
- 15.Oil tank cap
- 16.Oil tank window
- 17.Shoulder harness
18. Hook
- 19.Guid bar cover
- 20.Extended gripping area



SPECIFICATIONS

Model:		CEDCPS20
No load speed		1,300 min-1
Rated voltage		D.C. 20 V
Net weight (Bare tool)		3.36 kg
Cutting length		180 mm
Guide bar	Type	Sprocket nose bar (Oregon)
	Standard length	200 mm
	Gauge	1.3 mm
Applicable saw chain type		91PX
Sprocket Pitch		3/8"
Number of drive links		34
Chain speed		8 m/s (0 - 480 m/min)

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.

Applicable battery cartridge and charger

battery cartridge	CEDLi-Ion 2Ah, CEDLi-Ion 4Ah, CEDLi-Ion 6Ah
battery charger	CEDFCH2.4, CEDDCH3.0, CEDFCH3.5











- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠ WARNING: Only use the battery cartridges and chargers listed above. Use of any other battery cartridge and chargers may cause injury and/or fire.

⚠ WARNING: Use appropriate combination of the guide bar and saw chain. Otherwise personal injury may result.

Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.

	Do not expose to moisture.
	Read instruction manual.
	Wear a helmet, goggles and ear protection.
	Wear protective gloves.
	Wear sturdy boots with nonslip soles. Steeltoed safety boots are recommended.
	Beware of electrical lines, risk of electrical shock.
	Keep distance at least 15 m.
	Maximum permissible cut length
	Direction of chain travel
	Chain oil tank



Use appropriate protection for foot-leg and hand-arm.



Hot surfaces - Burns to fingers or hands.



Only for EU countries

Do not dispose of electric equipment or battery pack together with household waste material!

In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for pruning branches and limbs.

Noise

The typical A-weighted noise level determined according to EN ISO11680-1:

Model CEDCPS20

Sound pressure level (LpA) : 79.5 dB(A) Sound power level (LWA) : 95.2 dB(A)

Uncertainty (K) : 3 dB(A)

NOTE: The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared noise emission value(s)

may also be used in a preliminary assessment of exposure.

⚠ WARNING: Wear ear protection.

⚠ WARNING: The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.

⚠ WARNING: Be sure to identify safety measures to protect the operator 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 time).

Vibration

The vibration total value (tri-axial vector sum) determined according to EN ISO11680-1 :

Model CEDCP520

Vibration emission (ah,W) : 2.5 m/s²

Uncertainty (K) : 1.5 m/s²

NOTE: The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.

NOTE: The declared vibration emission value may also be used in a preliminary assessment of exposure.

⚠ WARNING: The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.

⚠ WARNING: Be sure to identify safety measures to protect the operator 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 time).

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.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.**
the risk of electric shock.
Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **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.
7. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.**

However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal Safety

1. **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.
2. **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.
3. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
4. **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.

5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **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.
8. **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.
9. **Always wear protective goggles to protect your eyes from injury when using power tools.** The goggles must comply with ANSI Z87.1 in the USA, EN 166 in Europe, or AS/NZS 1336 in Australia/New Zealand. In Australia/New Zealand, it is legally required to wear a face shield to protect your face, too.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.
8. **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.
9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.

Battery tool use and care

1. **Recharge only with the charger specified by the manufacturer.** A damaged or modified one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **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.
4. **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.**
5. **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 modified batteries.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **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

1. **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.
2. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. **Follow the instruction for lubricating and changing accessories.**



It is an employer's responsibility to enforce the use of appropriate safety protective equipments by the tool operators and by other persons in the immediate working area.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.
4. **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.
5. **Maintain power tools and accessories. 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.

Cordless Pole Saw Safety Warnings

General precautions

1. Before starting the tool, read this instruction manual to become familiar with the handling of the tool.
2. Do not lend the tool to a person with insufficient experience or knowledge regarding handling of the tool.
3. When lending the tool, always attach this instruction manual.
4. Do not allow children or young persons under 18 years old to use the tool. Keep them away from the tool.
5. Handle the tool with the utmost care and attention.
6. Never use the tool after consuming alcohol or drugs, or if feeling tired or ill.
Never attempt to modify the tool.
7. Do not use the tool in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.
8. National regulations may restrict of the use of the tool. Follow the regulations about handling of the tool in your country.

Personal protective equipment

1. Wear safety helmet, protective goggles and protective gloves to protect yourself from flying debris or falling objects.
2. Wear ear protection such as ear muffs to prevent hearing loss.
3. Wear proper clothing and shoes for safe operation, such as a work overall and sturdy, non-slip shoes. Do not wear loose clothing or jewelry. Loose clothes, jewelry or long hair can be caught in moving parts.
4. When handling the saw chain or adjusting the chain tension, wear protective gloves. Saw chain can cut bare hands severely.

Work area safety

1. Keep the tool at least 15 m away from electric lines and communication cables (including any branches contacting them). Touching or approaching high-voltage lines with the tool can result in death or serious injury. Watch power lines and electrical fences around the work area before starting operation.
2. Operate the tool under good visibility and daylight conditions only. Do not operate the tool in darkness or fog.
3. During operation, never stand on an unstable or slippery surface or a steep slope. During the cold season, beware of ice and snow and always ensure secure footing.
4. During operation, keep bystanders or animals at least 15 m away from the tool. Stop the tool as soon as someone approaches.
5. When working with two or more people, keep a distance of at least 15 m or more between each other, and put a supervisor.
6. Before operation, examine the work area for wire fences, walls, or other solid objects. They

can damage the saw chain.

Preparation

1. Before assembling or adjusting the tool, switch off the tool and remove the battery cartridge.
2. Before handling the saw chain or adjusting the chain tension, wear protective gloves.
3. Before starting the tool, inspect the tool for damages, loose screws/nuts or improper assembly. Sharpen blunt saw chain. If the saw chain is bent or damaged, replace it. Check all control levers and switches for easy action. Clean and dry the grips.
4. Never attempt to start the tool if the tool is damaged or not fully assembled. Otherwise serious injury may result.
Adjust the shoulder harness to suit the operator's body size.
5. Adjust the chain tension properly. Refill the chain oil, if necessary.

Starting the tool

1. Wear the personal protective equipments before starting the tool.
3. Before starting the tool, make sure that there is no person or animal in the work area.
When installing the battery cartridge, keep the saw chain and guide bar clear of your body and other object, including the ground.
The saw chain may move when starting and may cause serious injury or damage to the saw chain and/or property.
4. Place the tool on firm ground. Maintain good balance and secure footing.

Operation

1. In the event of an emergency, switch off the tool immediately.
2. If you notice any unusual condition (e.g. noise, vibration) during operation, switch off the tool. Do not use the tool until the cause is recognized and solved.
3. The saw chain continues to move for a short period after switching off the tool. Don't rush to contact the saw chain.
4. During operation, use the shoulder harness. Keep the tool on your right side firmly.
Hold the front grip with your left hand and the rear grip with your right hand, no matter you are right-hander or left-hander. Wrap your fingers and thumbs around the grips.
Hold the tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring. A saw chain contacting a "live" wire may make exposed metal parts of the extended-reach pruner "live" and could give the operator an electric shock.
7. Never attempt to operate the tool with one hand. Loss of control may result in serious or fatal injury. To reduce the risk of injury, keep your hands and feet away from the saw chain. Do not overreach. Keep proper footing and balance at all times. Watch for hidden obstacles such as tree stumps, roots and ditches to avoid stumbling. Clear fallen branches and other objects away.
- 8.

9. Never work on a ladder or tree to avoid loss of control.
10. If the tool gets heavy impact or fall, check the condition before continuing work. If there is any damage or doubt, ask Makita authorized service center for the inspection and repair.
11. Do not touch the head of the tool. The head of the tool becomes hot during operation.
12. Take a rest to prevent loss of control caused by fatigue. We recommend to take a 10 to 20-minute rest every hour.
13. When you leave the tool, even if it is a short time, always switch off the tool and remove the battery cartridge. The running and unattended tool may be used by unauthorized person and cause serious accident.
14. When operating the tool, do not raise your right hand above your shoulder height.
15. During operation, never hit the saw chain against hard obstacles such as stones and nails. Take particular care when cutting branches next to walls, wire fences or the like.
16. If branches get caught in the tool, always stop the tool and remove the battery cartridge. Otherwise unintentional start may cause serious injury.
If the saw chain becomes clogged, always switch off the tool and remove the battery cartridge before cleaning.
Accelerating the tool with the saw chain blocked increases the load and will damage the tool.
Before cutting limbs, keep an escape area away from the falling limb. First, clear obstructs such as limbs and branches from the work area. Move all tools and goods from the escape area to another safe place.
Before cutting branches and limbs, check the falling direction of them, considering the condition of branches and limbs, adjoining trees, wind direction, etc. Pay full attention to the falling direction, and the rebound of the branch, which hit the ground.
Never hold the tool at an angle of more than 60°. Otherwise falling objects can hit the operator and cause serious injury. Never stand underneath the limb being cut.
21. Pay attention to broken or bent branches. They may bounce back in cutting, causing unexpected injury.
22. Before cutting limbs that you intend to cut, remove branches and leaves around them. Otherwise the saw chain may be caught by them.
24. To prevent the saw chain from being caught in the kerf, do not release the lever before pulling the saw chain out of the kerf.
25. If the saw chain is bound in the kerf, immediately stop the tool, carefully move the branch to open the kerf and release the saw chain.
26. Avoid kickback (rotational reactive force towards the operator). To prevent kickback, never use the guide bar nose or perform a penetrating cut. Always beware of the position of the guide bar nose.

27. Check the chain tension frequently. When checking or adjusting the chain tension, switch off the tool and remove the battery cartridge. If the tension is loose, tighten it.

Transport

1. Before transporting the tool, switch off the tool and remove the battery cartridge. Always fit the guide bar cover during transportation.
2. When transporting the tool, carry it in a horizontal position by holding the grip.

Maintenance

1. Have your equipment serviced by our authorized service center, always using only **genuine replacement parts**. Incorrect repair and poor maintenance can shorten the life of the tool and increase the risk of accidents.
2. Before doing any maintenance or repair work or cleaning the tool, always switch off the tool and remove the battery cartridge. Wait until the tool cools down.
3. Always wear protective gloves when handling the saw chain.
4. After each use, tighten all screws and nuts, except for adjustment screws.
5. Keep the saw chain sharp. If the saw chain has become blunt and cutting performance is poor, ask Makita authorized service center to sharpen it or replace it with new one.
Do not attempt any maintenance or repair not described in this instruction manual. Ask Makita authorized service center for such work.
7. Always use Makita genuine spare parts and accessories only. Using parts or accessories supplied by a third party may result in the tool breakdown, property damage and/or serious injury.

Storage

1. Before storing the tool, perform full cleaning and maintenance. Fit the guide bar cover. Remove the battery cartridge. Drain the chain oil after the tool cools down.
2. Store the tool in a dry and high or locked location out of reach of children.
3. Do not prop the tool against something, such as a wall. Otherwise it may fall suddenly and cause an injury.

Electrical and battery safety

1. Do not dispose of the battery(ies) in a fire.
The cell may explode. Check with local codes for possible special disposal instructions.
2. Do not open or mutilate the battery(ies).
Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
3. Do not charge battery in rain, or in wet locations.
4. Do not charge the battery outdoors.
5. Do not handle charger, including charger plug, and charger terminals with wet hands.
6. Avoid dangerous environment. Don't use the tool in dump or wet locations or expose it to rain. Water entering the tool will increase the risk of electric shock.

Important safety instructions for battery cartridge

1. Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
2. Do not disassemble or tamper with the battery cartridge. It may result in a fire, excessive heat, or explosion.
3. If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
4. If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.

Do not short the battery cartridge:

- (1) Do not touch the terminals with any conductive material.
- (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
- (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown. Do not store and use the tool and

6. battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F). Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
7. Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge. Such conduct may result in a fire, excessive heat, or explosion.
8. Do not use a damaged battery.
9. The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.
- 10.

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

11. When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.
12. Use the batteries only with the products specified by Makita. Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
13. If the tool is not used for a long period of time, the battery must be removed from the tool.

14. During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.
15. Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.
16. Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge. It may result in poor performance or breakdown of the tool or battery cartridge.
17. Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines. It may result in a malfunction or breakdown of the tool or battery cartridge. Keep the battery away from children.
- 18.

SAVE THESE INSTRUCTIONS.

⚠ CAUTION: Only use genuine Cedrus batteries. Use of non-genuine Cedrus batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Cedrus warranty for the Cedrus tool and charger.

Tips for maintaining maximum battery life

1. Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
2. Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
3. Charge the battery cartridge with room temperature at 5 °C - 45 °C. Let a hot battery cartridge cool down before charging it.
4. When not using the battery cartridge, remove it from the tool or the charger.
5. Charge the battery cartridge if you do not use it for a long period (more than six months).

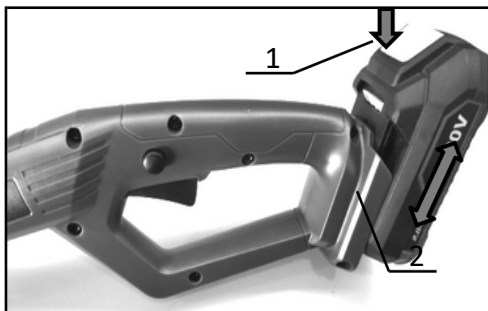
FUNCTIONAL DESCRIPTION

⚠ CAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

Installing or removing battery cartridge

⚠ CAUTION: Always switch off the tool before installing or removing of the battery cartridge.

⚠ CAUTION: Hold the tool and the battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.



► 1. Button 2. Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click.

CAUTION: Always install the battery cartridge fully. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

CAUTION: Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload protection

When the battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

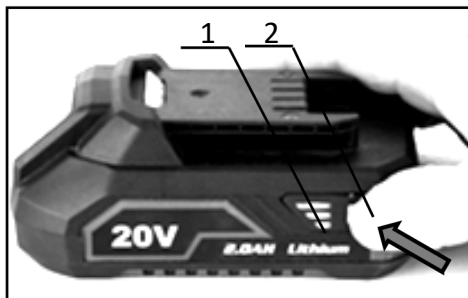
Overheat protection

When the tool or battery is overheated, the tool stops automatically. In this situation, let the tool/battery cool before turning the tool on again.

Overdischarge protection

When the battery capacity becomes low, the tool stops automatically. If the product does not operate even when the switches are operated, remove the batteries from the tool and charge the batteries.

Indicating the remaining battery capacity



► 1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity.

Indicator lamps		Remaining capacity
Lighted	Off	
		75% to 100%
		25% to 50%
		10% to 25%

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Switch trigger

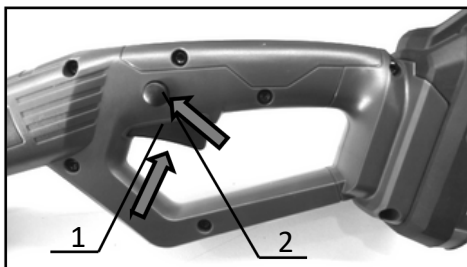
The tool is equipped with a lock-off lever which prevents the tool from unintended starting. NEVER use the tool if it runs when you simply pull the switch trigger without pressing the lock-off lever. Return the tool to our authorized service center for proper repairs BEFORE further usage.

WARNING: NEVER tape down or defeat purpose and function of lock-off lever.

CAUTION: Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

NOTICE: Do not pull the switch trigger hard without pressing the lock-off lever. This can cause switch breakage.

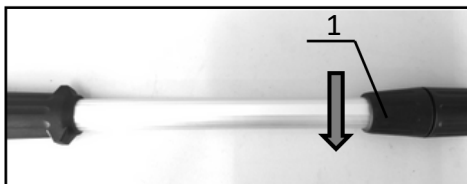
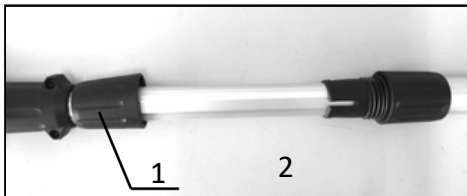
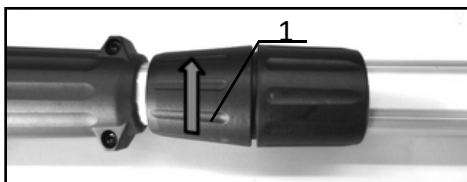
To prevent the switch trigger from being accidentally pulled, a lock-off lever is provided. To start the tool, depress the lock-off lever and pull the switch trigger. Release the switch trigger to stop.



► 1. Switch trigger 2. Lock-off lever

Adjusting the telescopic height

CAUTION: Before adjusting the telescopic height, be sure to switch off the tool and remove the battery cartridge from the tool. Failure to do so may cause a personal injury.



► 1. Telescopic height adjustment joint 2. Telescopic tube

Loosen the telescopic height adjustment joint by twisting it clockwise, then extend the telescopic tube to the required length and retighten the adjustment joint by twisting it anticlockwise firmly. The telescopic tube can be extended from 2.1 m to 2.60 m depending on the application.

CAUTION: After adjusting the telescopic

height, make sure that the telescopic tube is firmly secured.

Checking the run-down brake

stop
Within one second in this test, stop using the chain saw and consult our authorized service center.

Run the chain saw then release the switch trigger completely. The saw chain must come to a standstill within one second.

ASSEMBLY

CAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

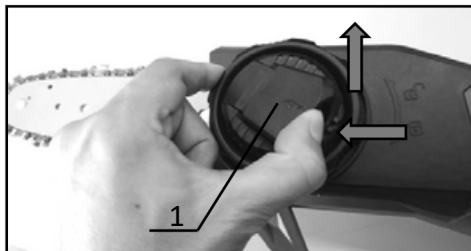
CAUTION: Do not touch the saw chain with bare hands. Always wear gloves when handling the saw chain.

Removing or installing saw chain

CAUTION: The saw chain and the guide bar are still hot just after the operation. Let them cool down enough before carrying out any work on the tool.

To remove the saw chain, perform the following steps:

1. Pull the lever up while pressing its edge.

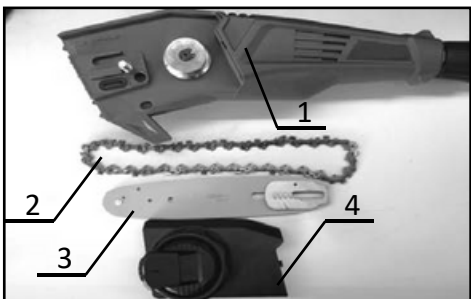


2. Turn the lever anticlockwise until the sprocket cover comes off.



► 1. Lever 2. Sprocket cover

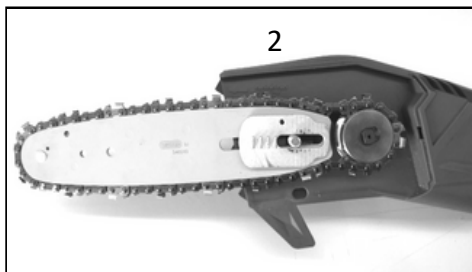
3. Remove the sprocket cover then remove the saw chain and guide bar from the chain saw body.



► 1. Chain saw body 2. Saw chain 3. Guide bar 4. Sprocket cover

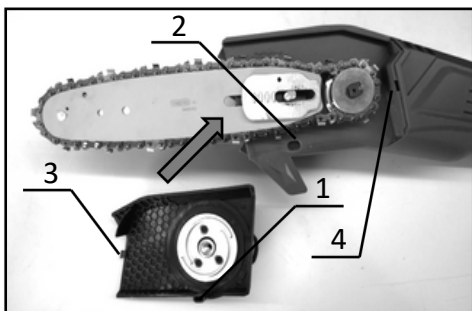
To install the saw chain, perform the following steps:

1. Make sure the direction of the chain. The arrow mark on the chain shows the direction of the chain.
2. Fit in one end of the saw chain on the top of the guide bar and the other end around the sprocket.
3. Rest the guide bar in original place on the chain saw.



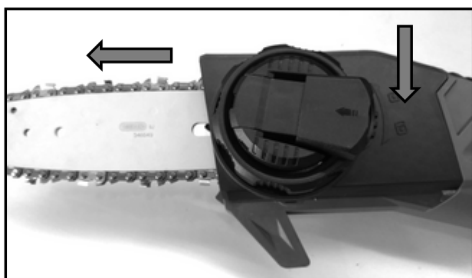
► 1. Arrow mark 2. Sprocket

4. Place the sprocket cover on the chain saw, align the tongue on the sprocket cover with the groove in the housing and slip it into place while matching the log boss on the cover to the corresponding holes at the same time, as shown below.

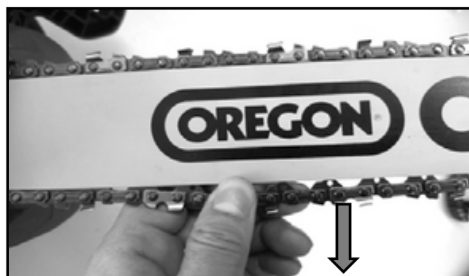
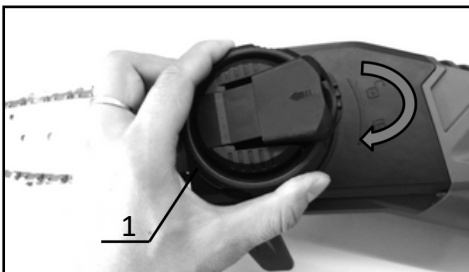


► 1. Log boss 2. Hole 3. Tongue 4. Groove

5. Depress the sprocket cover and lift backward or forward the guide bar a little bit until it locks in place with a little click.

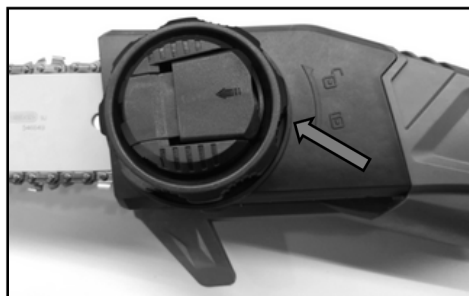
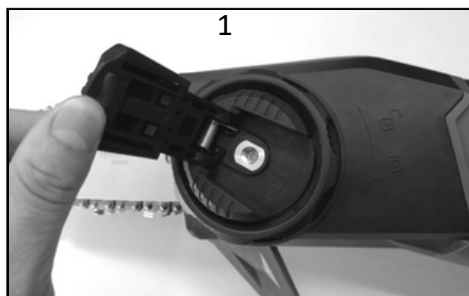


6. Turn the tension knob clockwise and check the chain tension; keep turning clockwise until of suitable tense. To check the suitable saw chain tension, pull the saw chain by the force of about 1kg, if there's distance 5-7mm between the saw chain and guide bar as shown in below, the tension is suitable.



► 1. Tension knob

7. Turn the lever clockwise until the sprocket cover is secured then return it to the original position.



► 1. Lever

Adjusting saw chain tension

⚠ CAUTION: Carry out the procedure of install- ing or removing saw chain in a clean place free from sawdust and the like.

⚠ CAUTION: Do not tighten the saw chain too much. Excessively high tension of saw chain may cause breakage of saw chain, wear of the guide bar and breakage of the adjusting dial.

⚠ CAUTION: A chain which is too loose can jump off the bar and it may cause an injury accident.

The saw chain may become loose after many hours of use. From time to time check the saw chain tension before use.

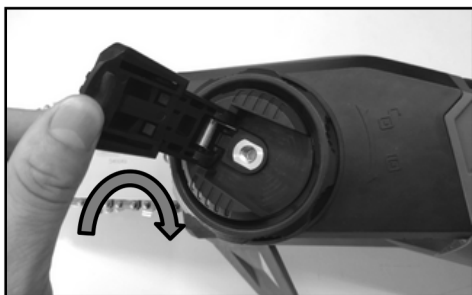
1. Pull the lever up while pressing its edge. Turn it counterclockwise a little bit to loosen sprocket cover lightly.



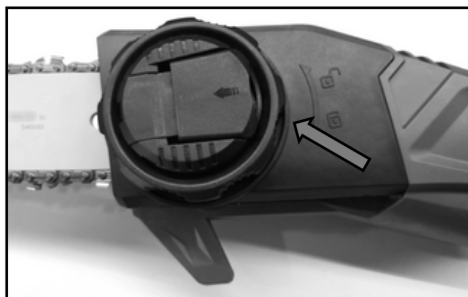
2. Turn the tension knob clockwise to tighten the saw chain until the lower side of the saw chain fits in the guide bar rail as illustrated.



3. Keep holding the guide bar lightly and turn the lever clockwise until the sprocket cover is secured.



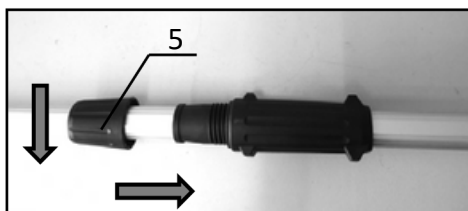
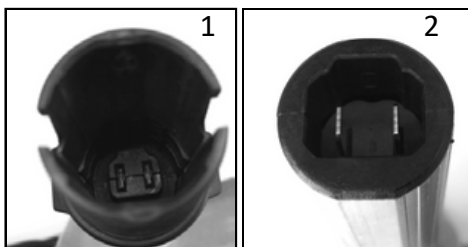
4. Return the lever to the original position.



⚠ CAUTION: Make sure that the saw chain does not loosen at the lower side and the saw chain fits snugly against the lower side of the bar.

Separating /Combining Tool body

⚠ CAUTION: Before separating or combining the tool body, be sure to switch off the tool and remove the battery cartridge from the tool. Failure to do so may cause a personal injury.

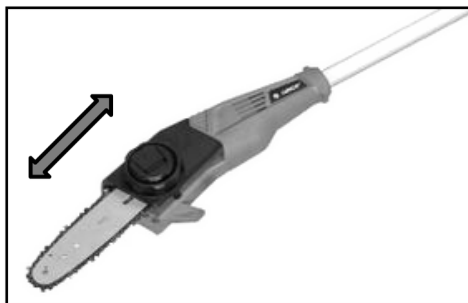


- 1. Tongue 2. Groove 3. Upper part assembly 4.

Lower part assembly 5. Tool body
separation/combination joint

To combine the tool body, align the tongue of the upper part assembly with the groove in the lower part assembly and slip it into place as far as it can go, then tighten the tool body separation/combination joint by twisting it anticlockwise firmly.

To separate the tool body, perform the combination procedure in reverse.

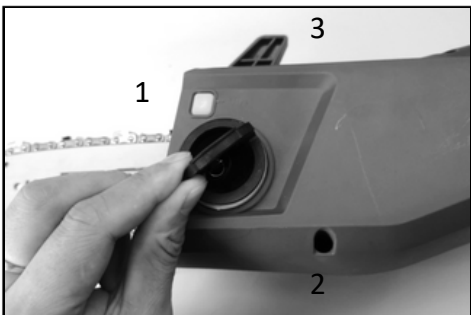


CAUTION: After combining the tool body, make sure that the joint is firmly tightened and secured.

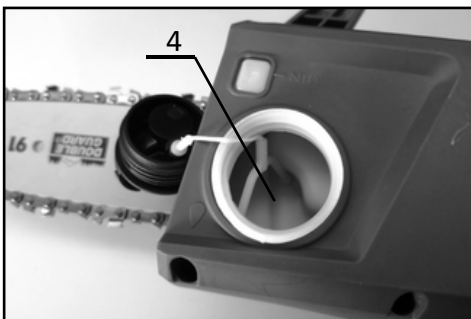
OPERATION

Lubrication

Saw chain is automatically lubricated when the tool is in operation. Check the amount of remaining oil in the oil tank periodically through the transparent oil tank window. To refill the tank, lay the chain saw on its side, pull up the lever and turn anticlockwise to remove the oil tank cap. The proper amount of oil is 160ml. After refilling the tank, make sure that the oil tank cap is tightened securely.



- 1. Lever 2. Oil tank cap 3. Oil tank window 4. Oil tank



After refilling, hold the chain saw away from the tree. Start it and wait until lubrication on saw chain is adequate.

NOTICE: When filling the chain oil for the first time, or refilling the tank after it has been completely emptied, add oil up to the bottom edge of the filler neck. The oil delivery may otherwise be impaired.

NOTICE: Use the saw chain oil exclusively for Cedrus chain saws or equivalent oil available in the market.

NOTICE: Never use oil including dust and particles or volatile oil.

NOTICE: When pruning trees, use botanical oil. Mineral oil may harm trees.

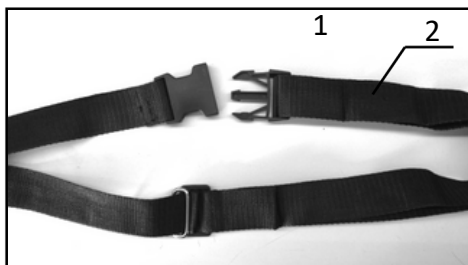
NOTICE: Before the cutting operation, make sure that the provided oil tank cap is screwed in place.

Use the shoulder harness

CAUTION: Before operation, make sure that the shoulder harness is properly attached to the hanger on the tool.

CAUTION: Before operation, make sure that the buckle of the shoulder harness is fastened firmly.

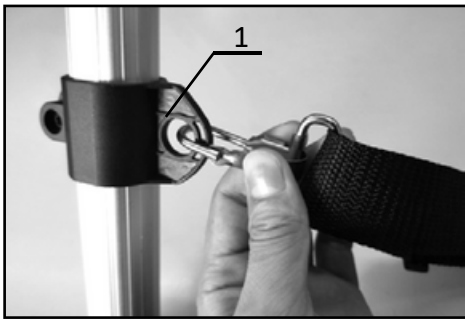
CAUTION: Always use the shoulder harness dedicated to this tool. Do not use other shoulder harnesses. 1. Fasten the buckle.



- 1. Buckle 2. Shoulder harness

NOTE: When removing the shoulder harness, unlock the buckle and remove the shoulder harness.

2. Clasp the hook on the shoulder harness to tool's hanger.



► 1. Hanger 2. Hook

3. Put the shoulder harness on the shoulder.



Stand on a stable surface, and hold the tool away from the branches so that the angle of the tool becomes 60° or less against the horizontal ground.



► 1. 60° or less

Start the tool, and then press the saw chain onto the branch lightly.

When cutting long branches, in order to control the drop position of cut branches, divide the branch in sections and cut the branch from the tip. Pay attention to the falling branches since they may bounce in the direction of the operator after hitting the ground.

When cutting thick branches, first make a shallow undercut and then make the finish cut from the top. If you try to cut off thick branches from the bottom, the branch may close in and pinch the saw chain in the cut. If you try to cut off thick branches from the top without a shallow undercut, the branch may splinter.

Working with the tool

⚠ CAUTION: Keep all parts of the body away from the saw chain when the motor is operating.

⚠ CAUTION: Hold the tool firmly with both hands when the motor is running.

⚠ CAUTION: Do not overreach. Keep proper footing and balance at all times.

⚠ CAUTION: When cutting through branches, be careful not to lose your balance due to the weight of the tool head.

⚠ CAUTION: Always keep escape route in case a cut branch falls towards the operator.

⚠ CAUTION: Never use the tip of the guide bar for cutting. Otherwise, dangerous kickback may occur, and it may result in personal injury.

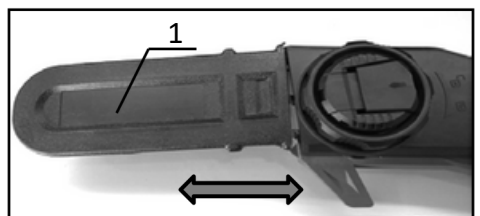
NOTICE: Never toss or drop the tool.

NOTICE: Do not cover the vents of the tool.

NOTICE: Do not force the tool. Otherwise, it may damage the tool.

Carrying tool

Before carrying the tool, always remove the battery cartridges from the tool, and then attach the guide bar cover.



► 1. Guide bar cover

MAINTENANCE

⚠ CAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.

⚠ CAUTION: Always wear gloves when performing any inspection or maintenance.

NOTICE: Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Cedrus Authorized or Factory Service Centers, always using Cedrus replacement parts.

Sharpening the saw chain

Sharpen the saw chain when:

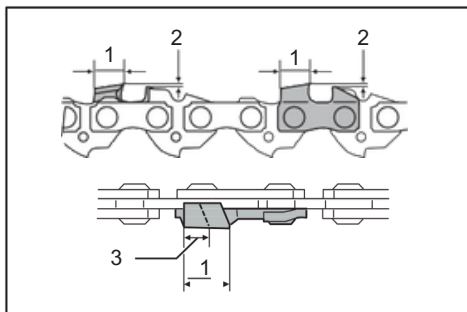
- Mealy sawdust is produced when damp wood is cut; The chain penetrates the wood with difficulty, even
- when heavy pressure is applied;
- The cutting edge is obviously damaged; The saw pulls to the left or right in the wood. (caused by uneven sharpening of the saw chain or damage to one side only)

Sharpen the saw chain frequently but a little each time.

Two or three strokes with a file are usually sufficient for routine resharpening. When the saw chain has been resharpened several times, have it sharpened in our authorized service center.

Sharpening criteria:

⚠ WARNING: An excessive distance between the cutting edge and depth gauge increases the risk of kickback.

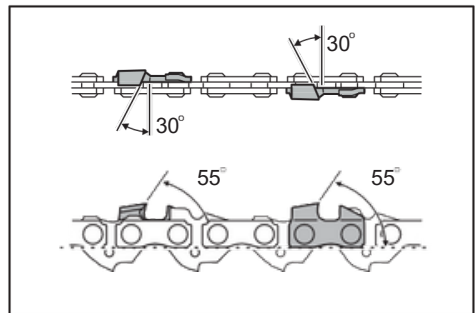


- 1. Cutter length 2. Distance between cutting edge and depth gauge 3. Minimum cutter length (3 mm)

- All cutter length must be equal. Different cutter lengths prevent the saw chain from running smoothly and may cause the saw chain to break.
- Do not sharpen the chain when the cutter length has reached 3 mm or shorter. The chain must be replaced with new one.
- The chip thickness is determined by the distance between the depth gauge (round nose) and the cutting edge.
- The best cutting results are obtained with following distance between cutting edge and depth gauge.

Chain blade 90PX : 0.65 mm (0.025")

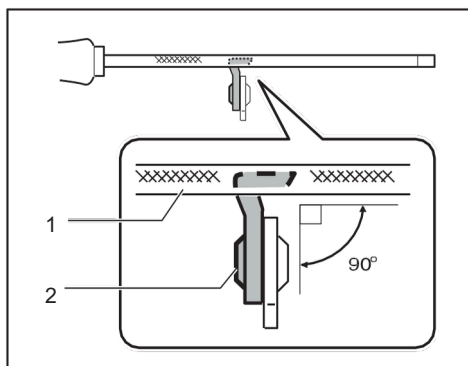
Chain blade 91PX : 0.65 mm (0.025")



- The sharpening angle of 30° must be the same on all cutters. Different cutter angles cause the chain to run roughly and unevenly, accelerate wear, and lead to chain breaks.
- Use a suitable round file so that the proper sharpening angle is kept against the teeth.
 - Chain blade 90PX : 55°
 - Chain blade 91PX : 55°

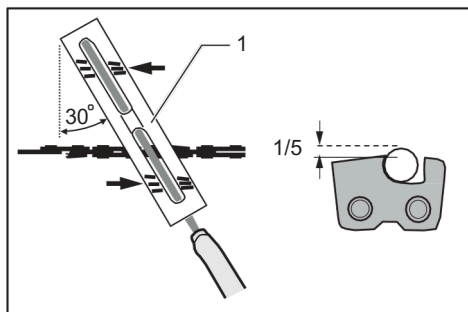
File and file guiding

- Use a special round file (optional accessory) for saw chains to sharpen the chain. Normal round files are not suitable.
- Diameter of the round file for each saw chain is as follows:
 - Chain blade 90PX : 4.5 mm (3/16")
 - Chain blade 91PX : 4.0 mm (5/32")
- The file should only engage the cutter on the forward stroke. Lift the file off the cutter on the return stroke.
- Sharpen the shortest cutter first. Then the length of this shortest cutter becomes the standard for all other cutters on the saw chain.
- Guide the file as shown in the figure.



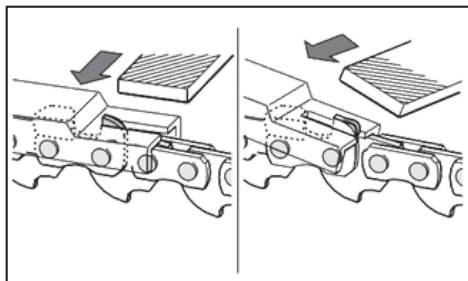
► 1. File 2. Saw chain

- The file can be guided more easily if a file holder (optional accessory) is employed. The file holder has markings for the correct sharpening angle of 30° (align the markings parallel to the saw chain) and limits the depth of penetration (to 4/5 of the file diameter).



► 1. File holder

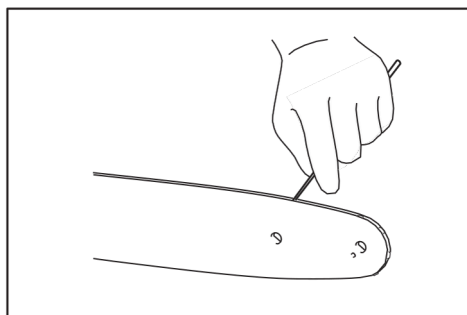
- After sharpening the chain, check the height of the depth gauge using the chain gauge tool (optional accessory).



- Remove any projecting material, however small, with a special flat file (optional accessory).
- Round off the front of the depth gauge again.

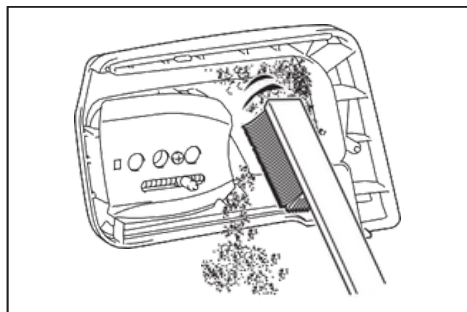
Cleaning the guide bar

Chips and sawdust will build up in the guide bar groove. They may clog the bar groove and impair the oil flow. Clean out the chips and sawdust every time when you sharpen or replace the saw chain.



Cleaning the sprocket cover

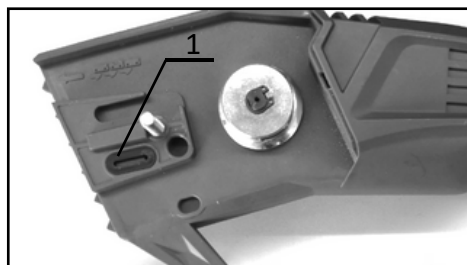
Chips and saw dust will accumulate inside of the sprocket cover. Remove the sprocket cover and saw chain from the tool then clean the chips and saw dust.



Cleaning the oil discharge hole

Small dust or particles may be built up in the oil discharge hole during operation. These dust or particles may impair the oil to flow and cause an insufficient lubrication on the whole saw chain. When a poor chain oil delivery occurs at the top of guide bar, clean the oil discharge hole as follows.

1. Remove the sprocket cover and saw chain from the tool.
2. Remove the small dust or particles using a slotted screwdriver with a slender shaft or the like.
3. Insert the battery cartridge into the tool. Pull the switch trigger to flow built-up dust or particles off the oil discharge hole by discharging chain oil.
4. Remove the battery cartridge from the tool. Reinstall the sprocket cover and saw chain on the tool.

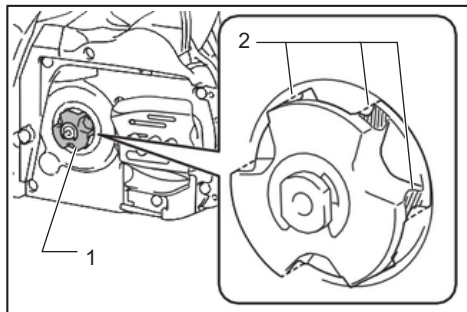


► 1. Oil discharge hole

Replacing the sprocket

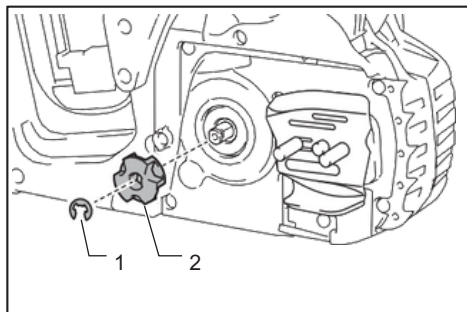
CAUTION: A worn sprocket will damage a new saw chain. Have the sprocket replaced in this case.

Before fitting a new saw chain, check the condition of the sprocket.



► 1. Sprocket 2. Areas to be worn out

Always fit a new locking ring when replacing the sprocket.



► 1. Locking ring 2. Sprocket

NOTICE: Make sure that the sprocket is installed as shown in the figure.

Storing the tool

1. Clean the tool before storing. Remove any chips and sawdust from the tool after removing the sprocket cover.
2. Separate the tool body.
3. After cleaning the tool, run it under no load to lubricate the saw chain and guide bar.
4. Cover the guide bar with the guide bar cover.
5. Empty the oil tank.

OPTIONAL ACCESSORIES

CAUTION: These accessories or attachments are recommended for use with your Cedrus tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Cedrus Service Center.

- Saw chain
- Guide bar
- Guide bar cover
- File
- Tool bag
- Cedrus genuine battery and charger

WARNING: If you purchase a guide bar of different length from the standard guide bar, also purchase a suitable guide bar cover together. It must fit and fully cover the guide bar on the chain saw.

NOTE: Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

Instructions for periodic maintenance

To ensure long life, prevent damage and ensure the full functioning of the safety features, the following maintenance must be performed regularly. Warranty claims can be recognized only if this work is performed regularly and properly. Failure to perform the prescribed maintenance work can lead to accidents! The user of the chain saw must not perform maintenance work which is not described in the instruction manual. All such work must be carried out by our authorized service center.

Check item / Operating time		Before operation	Everyday	Every week	Every 3 month	Annually	Before storage
Chain saw	Inspection.	✓	-	-	-	-	-
	Cleaning.	-	✓	-	-	-	-
	Check at authorized service center.	-	-	-	-	✓	✓
Saw chain	Inspection.	✓	-	-	-	-	-
	Sharpening if necessary.	-	-	-	-	-	✓
Guide bar	Inspection.	✓	✓	-	-	-	-
	Remove from the chain saw.	-	-	-	-	-	✓
Chain lubrication	Check the oil feed rate.	✓	-	-	-	-	-
Switch trigger	Inspection.	✓	-	-	-	-	-
Lock-off lever	Inspection.	✓	-	-	-	-	-
Oil tank cap	Check tightness.	✓	-	-	-	-	-
Screws and nuts	Inspection.	-	-	✓	-	-	-

TROUBLESHOOTING

Before asking for repairs, conduct your own inspection first. If you find a problem that is not explained in the manual, do not attempt to dismantle the tool. Instead, ask Cedrus Authorized Service Centers, always using Cedrus replacement parts for repairs.

Malfunction status	Cause	Action
The chain saw does not start.	Two battery cartridges are not installed.	Install two charged battery cartridges.
	Battery problem (low voltage).	Recharge the battery cartridges. If recharging is not effective, replace the battery cartridge.
	Main power switch is off.	The chain saw is automatically turned off if it is un-operated for a certain period. Turn on the main power switch again.
The motor stops running after a little use.	Battery's charge level is low.	Recharge the battery cartridges. If recharging is not effective, replace the battery cartridge.
No oil on the chain.	Oil tank is empty.	Fill the oil tank.
	Oil guide groove is dirty.	Clean the groove.
	Poor oil delivery.	Adjust the amount of oil delivery with the adjusting screw.
The chain saw does not reach maximum RPM.	Battery cartridge is installed improperly.	Install the battery cartridges as described in this manual.
	Battery power is dropping.	Recharge the battery cartridges. If recharging is not effective, replace the battery cartridge.
	The drive system does not work correctly.	Ask the authorized service center in your region for repair.
Abnormal vibration: Stop the machine immediately!	Loose guide bar or saw chain.	Adjust the guide bar and saw chain tension.
	Tool malfunction.	Ask the authorized service center in your region for repair.