



OPERATOR / PARTS MANUAL

Electric Chainsaw

Warning! Read through the operating instructions carefully and observe the instructions contained herein. Familiarize yourself with the machine, its correct use and the safety devices by means of these operating instructions.

8530



⚠️ WARNING

CALIFORNIA Proposition 65 Warning

Battery post, terminals, wiring insulation, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

WASH HANDS AFTER HANDLING.

IMPORTANT MESSAGE

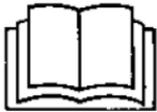
Thank you for purchasing this Mantis product. You have purchased a world class product, one of the best designed and built anywhere.

This machine comes with an Operator / Parts Manual. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand this manual. Treat your machine properly, lubricate and adjust it as instructed, and it will give you many years of reliable service.

Your safe use of this Mantis product is one of our prime design objectives. Many safety features are built in, but we also rely on your good sense and care to achieve accident-free operation. For best protection, study the manuals thoroughly. Learn the proper operation of all controls. Observe all safety precautions. Follow all instructions and warnings completely. Do not remove or defeat any safety features. Make sure those who operate this machine are as well informed and careful in its use as you are.

Mantis designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this machine only as directed in the manuals, keep in good repair and follow safety warnings and instructions. You'll always be glad you did.

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This Operator / Parts Manual is part of the machine. Suppliers of both new and second-hand machines must make sure that this manual is provided with the machine.



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Safety Rules & Warnings

You will notice throughout this Owners Manual Safety Rules and Important Notes. Make sure you understand and obey these warnings for your own protection.

I. SPECIAL SAFETY INFORMATION

WARNING

Attention: This symbol points out our important safety instructions. When you see this symbol , heed it's warning !! Stay alert !!

WARNING

To reduce the potential for accidents, comply with the safety instructions in this manual. Failure to comply may result in serious personal injury, and/or equipment and property damage.

II. SAFETY & WARNINGS

WARNING

Improper use or care of this machine or failure to wear proper protection can result in serious injury. Read and understand the rules for safe operation and all instructions in this manual. Wear hearing and eye protection.

1. SAFETY SIGNS AND INTERNATIONAL SYMBOLS

These Operating Instructions describe safety symbols and international symbols and pictographs that may be applied to the device. Read the Operating Instructions to familiarise with all information concerning safety, assembly, operation, maintenance and repair.



Wear eye, head and ear protection !



Caution! Warning symbols with information on damage and injury prevention.



Attention! If you do not adhere to the instructions and safety measures described in the Operating Instructions severe injuries may occur. Read the Operating Instructions before you start and operate this device.



Do not subject this electric power tool to rain



Remove plug immediately if the power cord is damaged or cut



Attention, kick-back!



Hold tool with both hands!



Attention: Environmental Protection! This device may not be disposed of with general/ household waste. Dispose of only at a designated collection point.

2. Introduction to the Operating Instructions

These Operating Instructions are intended to facilitate your becoming acquainted with the machine and using it in accordance with the regulations. The Operating Instructions contain important information on how to use the machine safely, correctly and economically. Observing this information will help increase the reliability and working life of the machine. The Operating Instructions must always be at hand when the machine is being used.

They must be read and observed by every person dealing with the machine, whether operating, servicing or transporting it.

In addition to the Operating Instructions and the applicable rules of the prevention of accidents valid in the country of use and on site, the generally recognized rules on working safely and correctly must be observed as well as the accident prevention rules of the relevant professional associations.

3. Important Instructions for Your Personal Safety

3.1. General Power Tool Safety Warnings



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

Safe all warnings and instructions for future reference.

The term 'power tool' in the warnings refers to your corded power tool.

1) 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.

2) Electrical Safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is 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 GFCI (ground fault circuit interrupt) protected supply. Use of a GFCI reduces the risk of electric shock.

3) Personal Safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4) 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 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.

5) 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.

3.2. Chain Saw Safety Warnings:

- Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not contacting anything. A moment of inattention while operating chain saw may cause entanglement of your clothing or body with the saw chain.
- Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle. Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring or its own cord. Saw chain contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Adequate protective clothing will reduce personal injury caused by flying debris or accidental contact with the saw chain.
- Do not operate a chain saw in a trees. Operating of a chain saw while up in a tree may result in personal injury.
- Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces such as ladder may cause a loss of balance or the control of the chain saw.

- g) **When cutting a limb that is under tension be alert for spring back.** *When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.*
- h) **Use extreme caution when cutting brush and saplings.** *The slender material may catch the chain and be whipped toward you pull you off balance.*
- i) **Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar cover.** *Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.*
- j) **Follow the instructions for lubrication, chain tensioning and changing accessories.** *Improperly tensioned or lubricated chain may either break or increase the chance for kickback.*
- k) **Keep handles dry, clean, and free from oil and grease.** *Greasy, oily handles are slippery causing loss of control.*
- l) **Cut wood only! Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials.** *Use of the chain saw for operations different than intended could result in a hazardous situation.*
- m) **Keep the cable away from the cutting area.** *When working with the tool the cable might be hidden in bushes and accidentally cut through.*

3.3. Causes and Operator Prevention of Kickback:

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.

Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is a result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- **Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.** *Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw!*
- **Do not overreach and do not cut above shoulder height.** *This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.*
- **Only use replacement bars and chains specified by the manufacturer.** *Incorrect replacement bars and chains may cause chain breakage and/or kickback.*

3.4. Important Instructions for Your Personal Safety

A) General safety instructions

1. Never attempt to use an incomplete machine or one which an unauthorised alteration has been implemented.
2. These devices are not designed to be operated by persons who have insufficient experience and/or insufficient knowledge or by persons with impaired physical, sensory or mental capabilities, unless they are being supervised by a person who is responsible for their safety or they are receiving instructions about how these devices are to be used.
3. Children and young persons under 18 may not operate electrical chainsaws, with the exception of apprentices older than 16 under the supervision of a trained adult.
4. The chainsaw may only be used by persons who have sufficient experience.
5. Always keep these Operating Instructions together with the chainsaw.
6. Only lend or give this chainsaw to persons who are familiar with its use. Also give them these Operating Instructions.

B) Instructions on using the chain saw safely

1. Attention! Read the Operating Instructions carefully and have yourself instructed in the use of a chain saw before you use it for the first time.
2. Always store your electric tools in a safe place. Electric tools not being used should be stored in a dry, inaccessible or locked place, outside the reach of children.
3. Check the extension cable regularly and replace it if it gets worn or damaged.
4. Check the power cable for damage or cracks every time before you use it. Damaged cables must be replaced.
5. Always hold the chain saw with both hands while working with it.
6. The chain saw must be disconnected from the power supply before you tighten the chain, exchange the chain or carry out any other work on the saw. - Pull the plug!
7. During work breaks put the machine down in such a manner that nobody is at risk.
8. When switching on the chain saw, ensure that it is supported well and hold it firmly. The chain and bar must be free.
9. Disconnect the chainsaw from the power source if the power cable is damaged or cut.
10. The chain saw may only be connected to socket outlets with a ground contact and tested electrical installations. We recommend the use of a residual-current-operated circuit-breaker. The fuse must have a value of 15 A or 20 A and mustn't be used by other consumers while working with the chain saw.
11. The cable must be fully unwound when you use a cable reel.
12. Ensure that the power cable has no kinks and is not damaged.
13. Always position the cable so, that it will not be caught on branches and the like, during cutting.
14. The chain saw may only be used in a completely assembled state. No protective devices may be missing.
15. Switch the chain saw off immediately if you notice any changes in the machine.
16. Always have a first-aid kit at hand in case of accidents.
17. If the chain saw comes into contact with earth, stones, nails or other foreign objects, withdraw the plug immediately and check the chain as well as the bar.
18. Ensure that no chain oil penetrates into the earth or sewage. Always place the chain saw on something that will absorb any oil dripping from the bar or chain.
19. Avoid to use the chainsaw in poor weather conditions, especially if there is a risk of a thunderstorm.

C) Warning to the danger of recoil ("kickback")

1. If possible, use a stand.
2. Always keep an eye on the bar tip.
3. Only place a running saw on the object to be cut. Never start the machine while the chain rests on something.
4. So called piercing cuts with the bar tip may only be carried out by trained personnel.

D) Instructions on safe working techniques

1. Working on ladders, scaffoldings or trees is forbidden.
2. Ensure that the wood cannot twist while it is being cut.
3. Watch out for splintering wood. While you are sawing you may be injured by flying wood chips.
4. Do not use the chain saw to lever or move the wood.
5. Only cut with the lower section of the saw. The saw will be repulsed towards you if you try and cut with the upper section of the saw.
6. Ensure that the wood is free of stones, nails or other foreign objects.
7. We recommend that first-time users are instructed practically as to the correct use of the chainsaw and the required personal safety equipment by an experienced operator; the cutting of round wood or logs should be trained on a log stand or similar rack-type device first.
8. Keep the running chainsaw from touching the ground or wire fences.

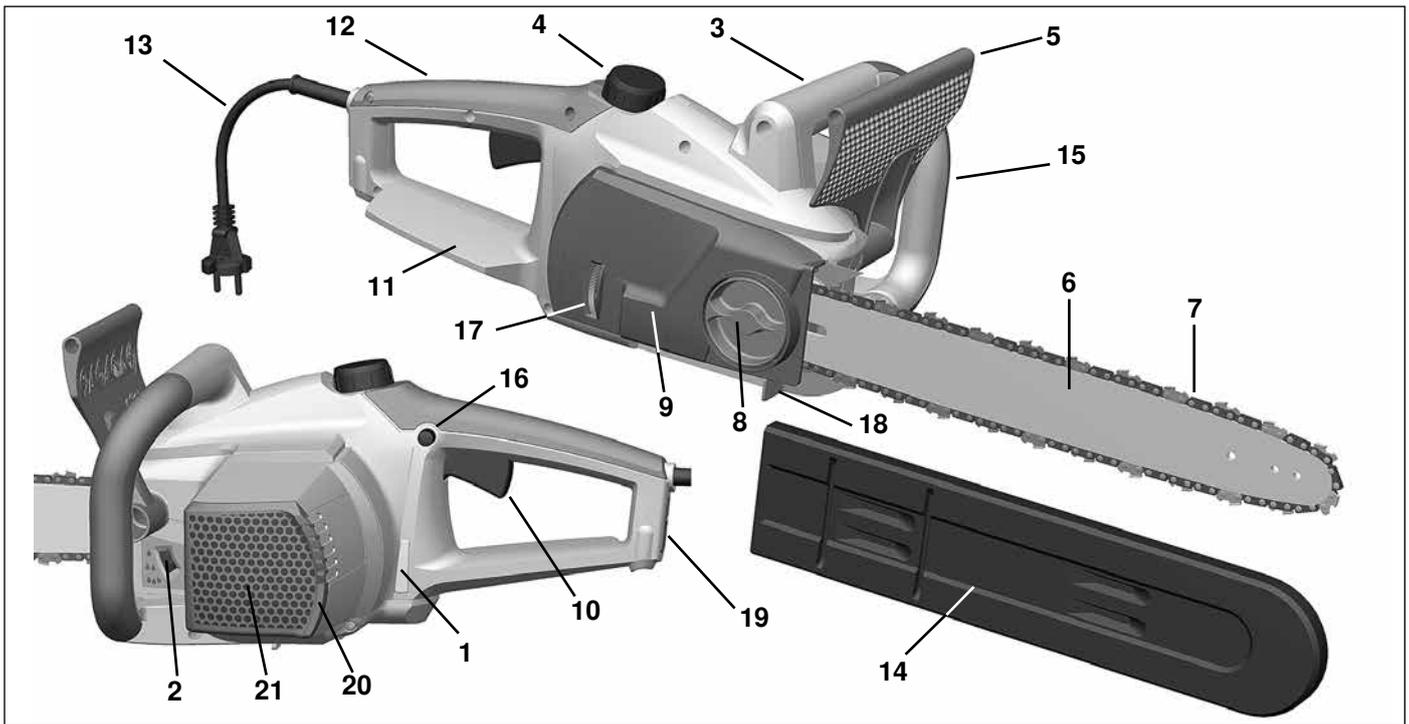
 **WARNING**

To avoid serious personal injury, do not attempt to use this product until you have read this Owner's Manual thoroughly and understand it completely.

 **WARNING**

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

4. Names of Parts



- | | | |
|--------------------------------------|-------------------------|--|
| 1 Oil inspection window (see Fig. 2) | 8 T-screw | 15 Fell handle for horizontal cut |
| 2 Oil pump adjuster | 9 Pinion lid | 16 Stopping button (see Fig. 6 / 15) |
| 3 Front handle | 10 Switch | 17 Knurling wheel for quick chain tension adjustment |
| 4 Oil tank cap | 11 Rear hand protection | 18 Chain catch bolt |
| 5 Front hand protection | 12 Rear handle | 19 Cable holder |
| 6 Blade | 13 Plug | 20 Filter cover |
| 7 Saw chain | 14 Blade protection | 21 Filter |

WARNING

Do not use this product if any parts on the packing list are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

WARNING

If any parts are damaged or missing, do not operate this product until the parts are replaced. Failure to heed this warning could result in serious personal injury.

WARNING

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

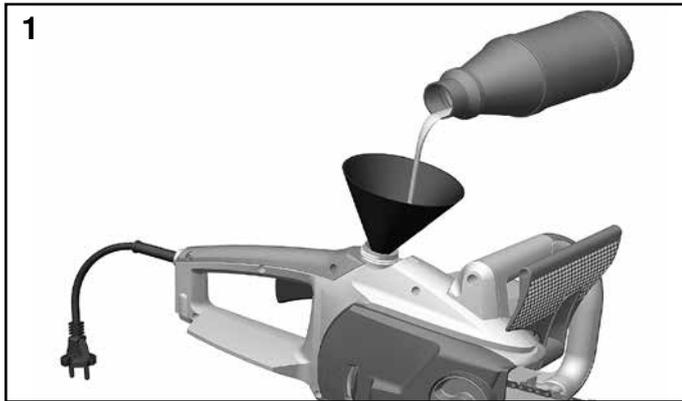
WARNING

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

Use a GFCI (ground fault circuit interrupt) protected supply with a tripping current of 30 mA or less.

5. Starting Up

5.1. Filling the Oil Tank and Adjusting the Oil Supply (Fig. 1-3)

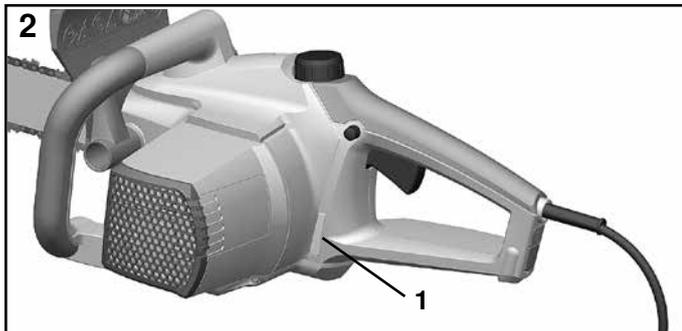


The chainsaw must never be operated without sufficient oil on the chain as this could cause damage to the chain, blade or motor. No claims for guarantee can be accepted if damage occurs when the device is being operated without chain oil.

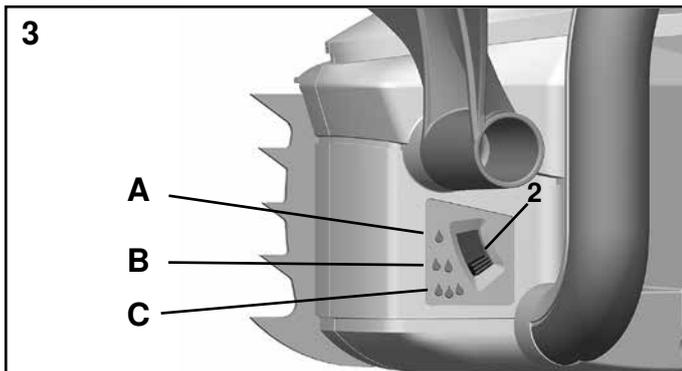
Please use only chainsaw oil, i.e. oil which is 100% biodegradable. Biodegradable chainsaw oil should be available everywhere at your local specialist dealer.

Do not use old oil. This will damage the chainsaw and will also lead to loss of the guarantee.

- Before filling the oil tank, unplug the chainsaw.
- Open the twist cap and place safely aside so that the sealing ring in the tank cap does not get lost.
- Fill approx. 8 oz into the tank using a funnel and screw on the tank cap tightly once more.



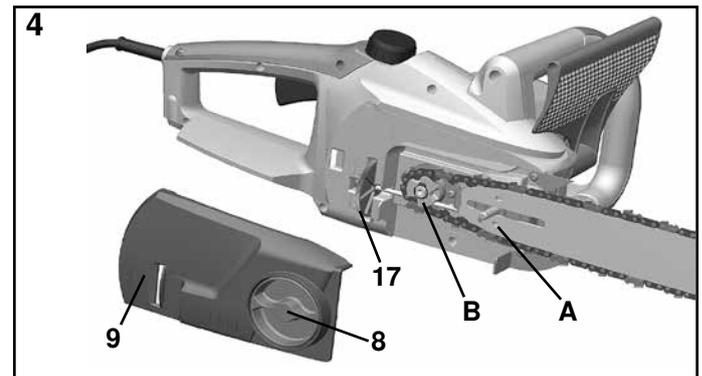
- It is possible to check the oil level at the oil sight glass (1) (Fig. 2). The oil sight glass is equipped with a light to aid the process of checking the oil level. If you do not intend to use the machine for an extended period, please empty the oil tank of chain oil.
- The oil tank should also be emptied before the chainsaw is transported or sent for repair.
- Check correct functioning of the chainsaw before commencing work. Switch on the saw with cutting fittings assembled and hold over a bright background at a safe distance (Be careful not to come in contact with the ground!). A track of oil will show you that the chain is sufficiently lubricated.



- The chainsaw is equipped with an oil metering mechanism. The volume of oil can be adjusted between 3 levels (A - low oil supply, B - normal oil supply, C - high oil supply) depending on the type of wood being cut (Fig. 3). This ensures the economical use of chainsaw oil. Position A on the oil pump adjuster (2) is intended for soft, moist timber and position C is intended for harder, dry timber. Position B should be used for average types of timber.
- After use, lay the chainsaw horizontally on some absorbing surface. The oil spread on the blade, chain and drive may lead to some further dripping of oil.

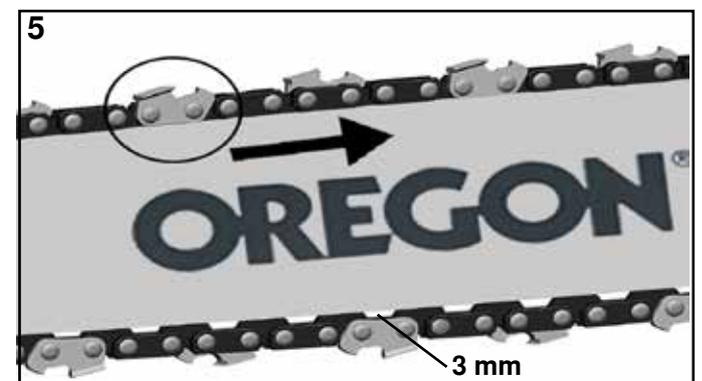
5.2. Assembling the Blade and Chain (Fig. 4)

CAUTION ! Risk of injury ! Always use safety gloves when assembling the chain !



For assembling the bar and chain with this chainsaw no tools are required !

- Put the chainsaw on a stable workbench.
- Loosen the T-screw (8) turning it clockwise.
- Remove the gear cover (9).
- Put the chain on the bar considering the running direction of the chain. **The cutting teeth on the upper side of the bar must point in forward direction** (see Fig. 5).
- Put the free end of the chain over the chain driving wheel (B).
- Place the bar such that the long hole in the bar is placed exactly on the guiding element in the bar seat.
- Take care that the chain tensioning bolt (A) is seated exactly in the small opening in the bar (Fig. 4). It must be visible through the opening. If necessary, adjust the knurling wheel of the chain tensioning device (17) in both directions until the chain tensioning bolt is seated in the opening in the bar.
- Check whether all chain links are seated exactly in the bar's groove and the chain is lead around the chain driving wheel correctly.
- Put the gear cover (9) back on and push it in place.
- Moderately tighten the T-screw (8) by turning it clockwise.



- Tension the chain. To do so turn the knurling wheel upwards (+ direction of arrow). The chain should be tensioned such that it can be lifted by about 1/8" in the middle of the bar. To decrease the chain tension turn the knurling wheel downwards (- direction of arrow).
- Finally, tighten the T-screw (8) well by hand.

The tension in the chain has a major effect on the service life of the cutting fittings, and must therefore be checked regularly. When the chain warms up to operating temperature it will expand and must be retightened. A new saw chain will have to be tightened more frequently until it has reached its full length.

CAUTION: During the running-in period, the chain must be more frequently tightened. The chain must be immediately retightened if it shakes or leaves the groove!

To tension the chain slightly loosen the T-screw (8). Then turn the knurling wheel upwards (+ direction of arrow). Tension the chain such that it can be lifted by about 1/8" in the middle of the bar, as shown.

5.3. Connecting the Chainsaw (Fig. 6)

WARNING

Do not use this product if any parts on the packing list are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

CAUTION: The voltage and current supply must comply with the ratings on the type plate. Before commencing work, always check that the chainsaw works properly and is safe to operate. Check also that the chain lubrication and the oil gauge are in good working order.

WARNING

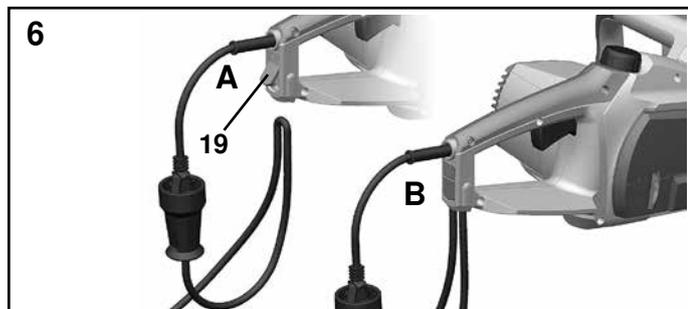
In order to prevent electric shock, use an extension cord that is suitable for outdoor use.

CAUTION: The cords must be water-proof. If the connection cable of this device should be damaged it must be replaced by a workshop named by the manufacturer only as this work requires the use of special tools. Mobile devices for outdoor use should be connected over a ground fault circuit interrupt (GFCI).

MINIMUM GAUGE FOR EXTENSION CORDS (AWG)

(WHEN USING 120 V ONLY)

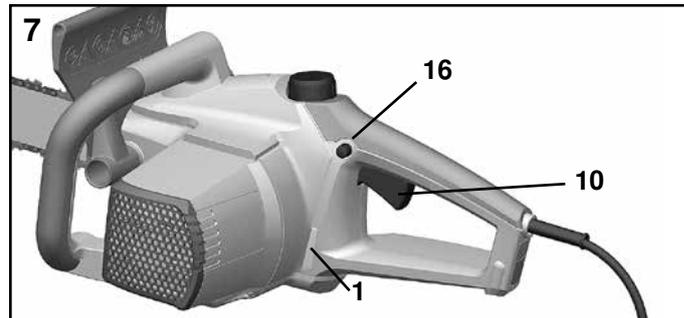
Amp Rating		Total Length of Cord in Feet (meters)			
More than	Not More than	25' (7.6 m)	50' (15 m)	100' (30.4 m)	150' (45.7 m)
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Recommended	



This chain saw is fitted with a strain-relief device to provide extra safety for the connection. First connect the device plug with the connection line. Form a narrow loop with the connecting cable, press on the button and swivel the cable holder (19) out into position A. Now insert the loop of cable from below into the extension cord cleat. Once you have released

the cable hook button, it will automatically return to starting position B and the cable will be held in place. Press the cable holder button again to loosen the cable and pull out the cable.

5.4. Switching On (Fig. 4)



- Hold the saw securely with both hands so that the thumbs and fingers are wrapped around the handle of the chain saw.
- Press with your thumbs the stopping button (16) on the left side of the rear handle and then the operating switch (10).
- The stopping button (16) is used for unlocking the switch-on mechanism and does not need to be pressed again after the device is switched on.
- To switch off the device, release switch (10).

CAUTION: Attention: The sawing chain will start running at high speed immediately. When putting the saw down, make sure that the chain never touches stones or metal objects.

5.5 Soft Start

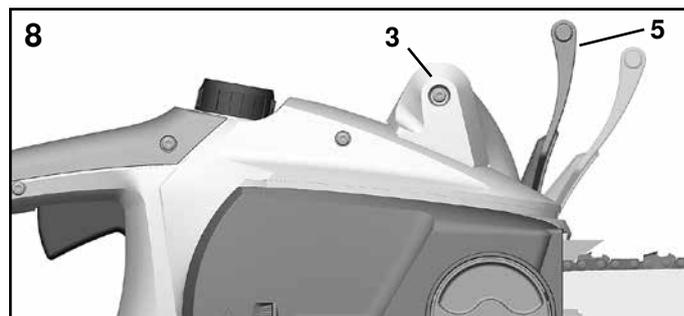
The chain saw is equipped with an electronic soft start, in order to avoid any voltage peaks occurring when it is switched on.

5.6 Thermal Overload Switch

If the chain saw is overloaded, the overload switch will switch the machine off automatically. After a cool-down period of roughly 15 minutes the machine will be operational once more. The unit must not be actuated during this period.

6. Safety Devices on Your Chain Brake

6.1. Chain Brake (Fig. 4)



This chainsaw is equipped with a mechanical brake for the chain. In the case of uncontrolled movements, when the tip of the saw blade gets in contact with wood or a solid object, the drive of the chain is immediately stopped by activation of the hand guard (5), the motor will not be stopped. This brake function is initiated by the back of your hand on the front handle (3) pushing the (5) hand guard. The proper function of the saw chain brake shall be checked before each use of the saw. About every 10 hours of operation, the chain brake should be checked for its proper function. After the chain brake has been activated, wait for the motor to come to a halt before you engage the clutch again. Do not unnecessarily activate the chain brake as this may result in increased wear and tear.

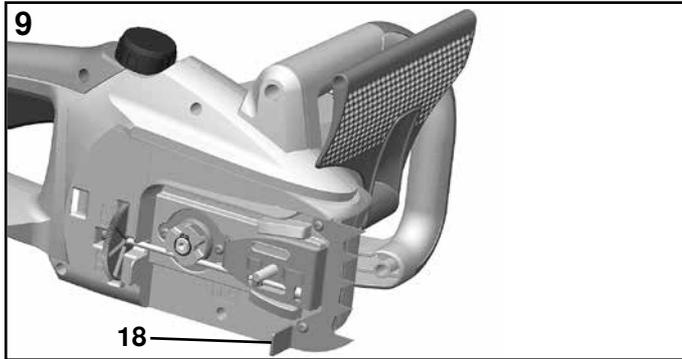
CAUTION: No buttons should be pressed when the chain brake is released (hand protection pulled back in the direction of the handle and locked).

Always ensure before starting the chainsaw that the hand protection (5) is locked in the operating position. To do this, pull back the hand protection in the direction of the handle.

6.2. Rundown Brake

In accordance with the latest regulations, this chainsaw is equipped with a mechanical rundown brake. This brake is connected to the chain brake and stops the running chain after the chainsaw has been switched off. It is activated by releasing the ON/OFF switch. The rundown brake avoids injuries through the coasting of the chain.

6.3. Chain Catch Bolt



This chainsaw is fitted with a chain catch bolt (18). If the chain breaks when the saw is in operation, the chain bolt will catch the loose chain end and thus prevent injury to the operator's hand.

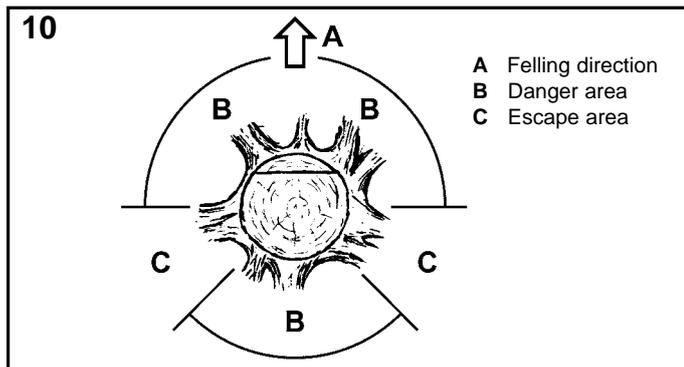
7. Instructions on Working Properly with the Chainsaw

7.1 Felling a Tree

When bucking and felling operations are being performed by two or more persons, at the same time, the felling operation should be separated from the bucking operation by a distance of at least twice the height of the tree being felled. Trees should be felled in a manner that would not endanger any person. If a tree strikes any utility line, the utility company should be notified immediately.

The chainsaw operator should keep on the uphill side of the terrain as the tree is likely to roll or slide downhill after it is felled.

A retreat path should be planned and cleared as necessary before cuts are started. The retreat path should extend back and diagonally to the rear of the expected line of fall as illustrated in Figure 10.

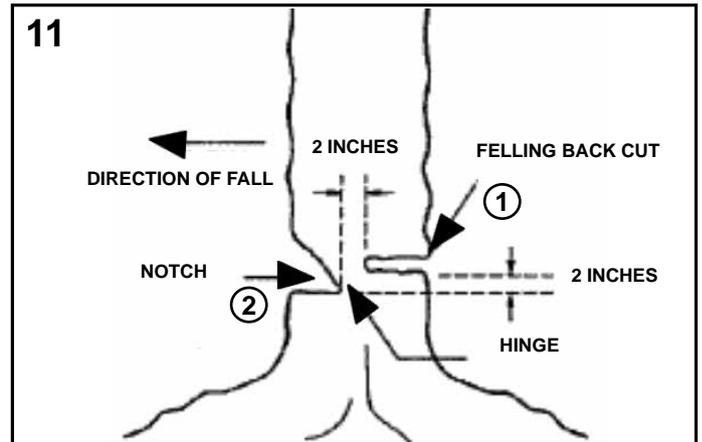


Before felling is started, consider the natural lean of the tree, the location of larger branches and the wind direction to judge which way the tree will fall.

Remove dirt, stones, loose bark, nails, staples, and wire from the tree where felling cuts are to be made.

7.2 Notching Undercut

Make the notch 1/3 the diameter of the tree, perpendicular to the direction of fall as illustrated in 11. Make the lower horizontal notching cut first. This will help to avoid pinching of either the saw chain or the guide bar when the second notch is being made.



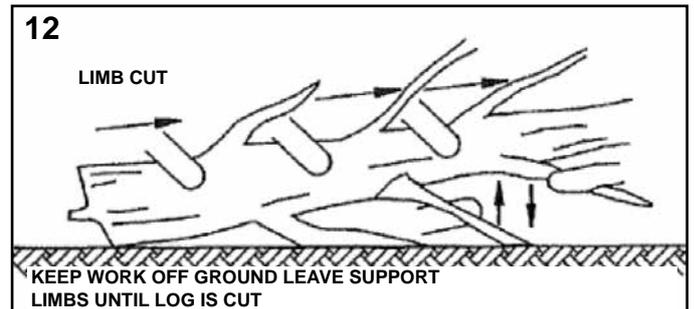
7.3 Felling Back Cut

Make the felling back cut at least 2 inches (50.8 mm) higher than the horizontal notching cut as illustrated in Figure 11. Keep the felling back cut parallel to the horizontal notching cut. Make the felling back cut so enough wood is left to act as a hinge. The hinge wood keeps the tree from twisting and falling in the wrong direction. Do not cut through the hinge.

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

When the tree begins to fall remove the chainsaw from the cut, stop the motor, put the chainsaw down, then use the retreat path planned. Be alert for overhead limbs falling and watch your footing.

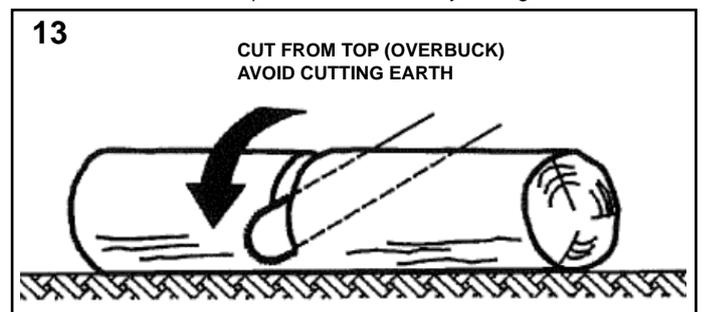
7.4 Limbing a Tree



Limbing is removing the branches from a fallen tree. When limbing, leave larger lower limbs to support the log off the ground. Remove the small limbs in one cut as illustrated in Figure 12. Branches under tension should be cut from the bottom up to avoid binding the chainsaw.

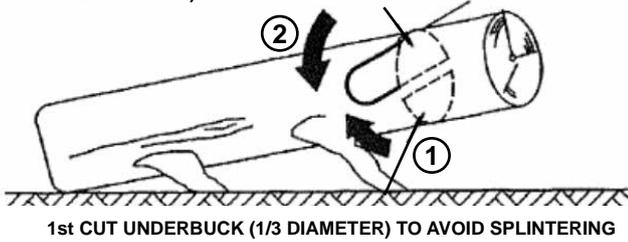
7.5 Bucking a Log

Bucking is cutting a log into lengths. It is important to make sure your footing is firm and your weight is evenly distributed on both feet. When possible, the log should be raised and supported by the use of limbs, logs or chocks. Follow the simple directions for easy cutting.



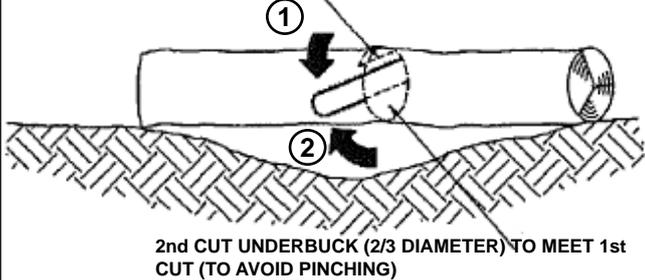
When the log is supported along its entire length as illustrated in Figure 13, it is cut from the top (over-buck).

14 2nd CUT OVERBUCK (2/3 DIAMETER) TO MEET 1st CUT (TO AVOID PINCHING)



When the log is supported on one end, as illustrated in Figure 14, cut 1/3 the diameter from the underside (underbuck). Then make the finished cut by overbucking to meet the first cut.

15 1st CUT OVERBUCK (1/3 DIAMETER) TO AVOID SPLINTERING

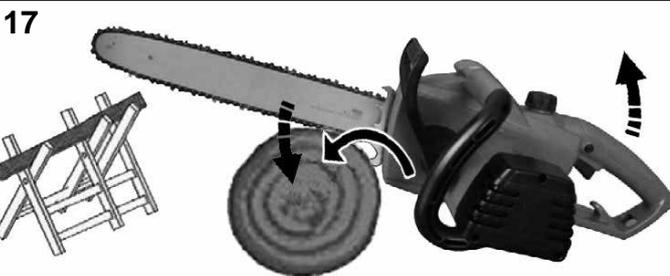


When the log is supported on both ends, as illustrated in Figure 15, cut 1/3 of that diameter from the top over-buck. Then make the finished cut by underbucking to meet the first cut.



When bucking on a slope always stand on the uphill side of the log, as illustrated in Figure 16. When "cutting through", to maintain complete control release the cutting pressure near the end of the cut without relaxing your grip on the chainsaw handles. Don't let the chain contact the ground. After completing the cut, wait for the saw chain to stop before you move the chainsaw. Always stop the motor before moving from tree to tree.

7.6 Spiked Bumper (Fig. 17)



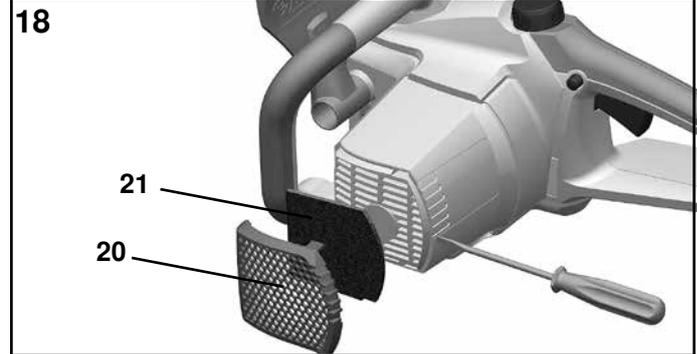
- Dig the spiked bumper into the log and use it as a pivot. Cut with an arched motion to make the bar penetrate the wood.
- Repeat several times if necessary, changing the point where you plant the spiked bumper.

7.7 Transporting the Chainsaw

- Before transporting the chainsaw, always remove the plug from the power socket and slide the chain guard over the rail and chain. If several cuts are to be performed with the chain saw, the saw must be switched off between cuts.
- When using a vehicle to transport the machine, position it so that it can cause no danger to persons and fasten it firmly.

8. Maintenance and Servicing

Always withdraw the plug when carrying out maintenance and servicing.



- Always remove wood shavings and oil from your chain saw after use. The intake zone for motor cooling is fitted with a filter (21) to protect the inside of the unit from becoming dirty. The filter is designed in such a way that, under normal conditions, it need only be brushed quickly from outside to clean it. The filter can be dismantled and cleaned externally (for instance with a blower) in the event of heavy volumes of dust. To do so, loosen the filter cap (20) from its lock where shown using a screwdriver (Fig. 18) and remove the filter.
- If the saw chain is particularly dirty, e.g. in case of gumming with resin, remove the chain and clean it. Place the chain for a few hours in a vessel containing chainsaw cleaner. There-after clean the chain with clear water. If the chain is not used again immediately, it must be treated with service spray or a customary anticorrosion-spray.
- Only in case of use of biodegradable oil: As some biodegradable oils may tend to incrustation after a time, the oiling system should be rinsed thoroughly before storing the chainsaw for a longer period. Therefore, please fill half of the oil reservoir (about 1.6 oz) with chainsaw cleaner and close it as usual. Then switch on the chainsaw - without bar and chain being mounted - and keep it running until the total rinsing liquid has passed through the oil opening of the chainsaw. Before using the chainsaw again, it is absolutely necessary to refill the oil reservoir.
- Do not store the saw outdoors or in damp and moist areas.
- Check all the chainsaw parts, in particular the chain, bar and sprocket, of wear after every use.
- Ensure that the chain tension is correct. If the chain is too loose, it may come off during use and lead to injuries. The chain must be replaced immediately if it is damaged. The cutting teeth must be at least 4 mm long.
- Check the motor housing and power cable after every use for damage. If there is any sign of damage, have the chainsaw checked by a specialized workshop or the works after-sales service.
- Check the oil level and lubrication of your chainsaw after every use. Insufficient lubrication leads to damage to the chain, bar and motor.
- Check how sharp the chain is every time before you use the chainsaw. A blunt chain will cause overheating of the motor.
- Sharpening a saw chain requires experience and specialized knowledge. We therefore recommend to have sharpening carried out by a specialized workshop.

9. In the Case of Technical Problems

9.1 The machine does not start up: the thermal overload switch has triggered, wait for the cool-down period, see 4.6. Check whether the current socket is live. Check whether the power cable is undamaged. If neither case applies, take the chainsaw to a specialized workshop or the works after-sales service.

9.2 Chain does not run: Check position of handguard (see ill. 8). Chain only runs if handguard brake is released.

9.3 Chain does not cut at all : Chain is not mounted in the correct direction. Assemble the chain in the correct direction.

9.4 Sparks fly at the motor: Motor or carbon brushes damaged. Take the chainsaw to a specialized work-shop or the works after-sales service.

9.5 Oil does not flow: Check the oil level. Clean the oil flow openings in the bar (see also the corresponding hints of "Maintenance and servicing"). If this is not successful, take the chainsaw to a specialized work-shop or the works after-sales service.

 **Attention: Any maintenance or repair work going beyond that described in these Operating Instructions may only be carried out by authorized persons or the works after-sales service.**

 **Attention: If the power supply lead of this device shows any defects, the lead must be replaced by an authorized repair shop only or through the manufacturer's own service personnel, as this work requires special tools.**

10. Repair Service

Repairs to electric power tools should only be carried out by specialist electrical personnel.

Always keep the original packaging for a possibly required shipping of the tool.

11. Environmental Protection



Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling center and disposed of in a manner which is compatible with the environment.



If your chainsaw should become useless somewhere in the future or you do not need it any longer, do not dispose of the device together with your domestic refuse, but dispose of it in an environmentally friendly manner. Please dispose of the device itself at an appropriate collecting/recycling point.

By doing so, plastic and metal parts can be separated and recycled. Information concerning the disposal of materials and devices are available from your local administration.

Properly dispose of packaging material that is not required any longer via your local waste paper disposal system.

12. Technical Data

Electric Chainsaw		Mantis 8530
Rated Voltage	V~	120
Nominal Frequency	Hz	60
Rated Output	W	1400
Nominal current	A	11.7
Guide Bar	in	15.75
Cutting length	in	15
Speed	fps	approx. 34.8
Weight	lbs	11.5
Oil	oz	8.5

All models with automatic chain lubrication and mechanical chain brake and rundown brake.

 **Attention: This chain saw is only intended for cutting wood !**



LIMITED WARRANTY

MANTIS extends this limited warranty against defects in material and workmanship for a period of two (2) years from the date of purchase by the original purchaser.

MANTIS will repair or replace, at its option, any part or parts of the product found to be defective in material or workmanship during the warranty period. Warranty repairs and replacements will be made without charge for parts or labor. All parts replaced under warranty will be considered as part of the original product, and any warranty on the replaced parts will expire coincident with the original product warranty. If you think your MANTIS ELECTRIC CHAINSAW is defective in material or workmanship, you must send it, along with your proof of purchase (sales receipt) to:

Mantis
1028 Street Road
Southampton, PA 18966

You are responsible for pickup and delivery charges; the product must be returned to us postage paid.

MANTIS assumes no responsibility in the event that the product was not assembled or used in compliance with any assembly, care, safety, or operating instructions contained in the Owner's Manual or accompanying the product. This limited warranty does not cover damages or defects due to normal wear and tear, lack of reasonable and proper maintenance, failure to follow operating instructions or owner's manual, misuse, lack of proper storage or accidents [or routine maintenance parts and service]. This limited warranty shall not be effective if your MANTIS ELECTRIC CHAINSAW has been subjected to negligence or has been repaired or altered by anyone other than an authorized dealer or authorized service center.

You must maintain your MANTIS ELECTRIC CHAINSAW by following the maintenance procedures described in the owner's manual. Such routine maintenance, whether performed by you or a dealer, is at your expense.

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