

COBRA

MODELS: CS1024V (CS11-2410D)

COBRA CORDLESS CHAINSAW OWNER'S MANUAL



Cobra Garden Machinery

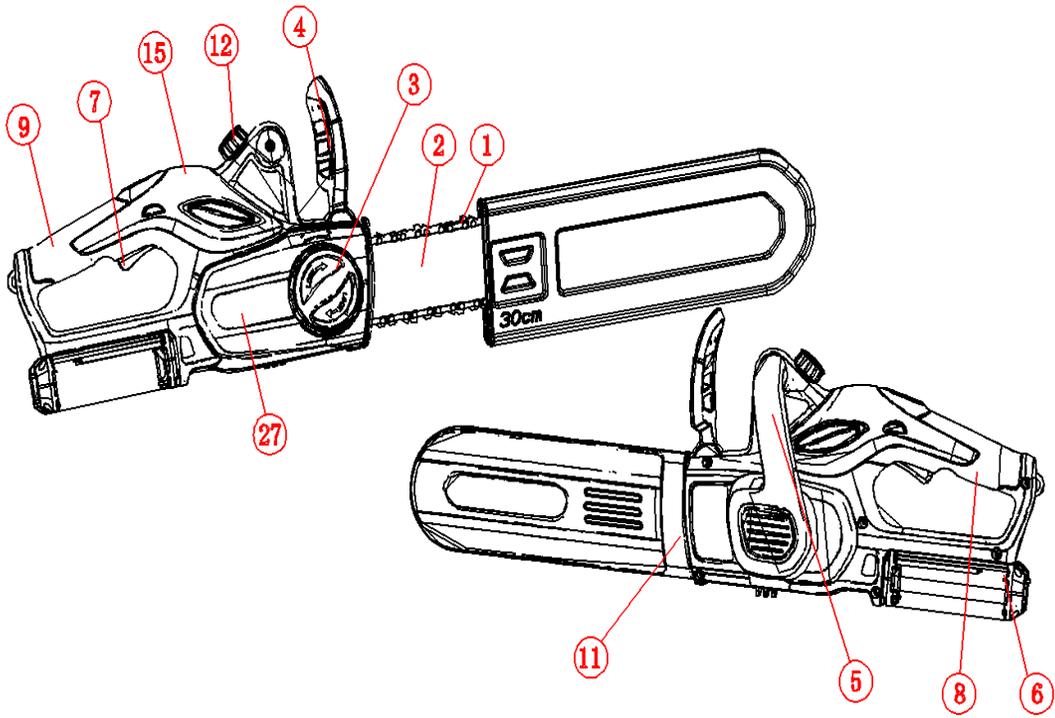
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⚠ WARNING:

For your own safety please read this manual before attempting to operate your new tool. Failure to follow instructions can result in serious personal injury. Spend a few moments to familiarize yourself with your garden tool before each use. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well.

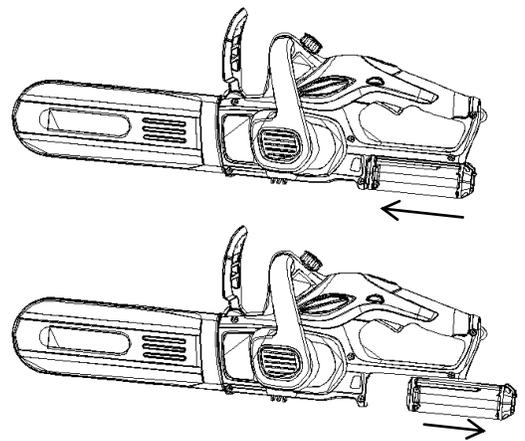
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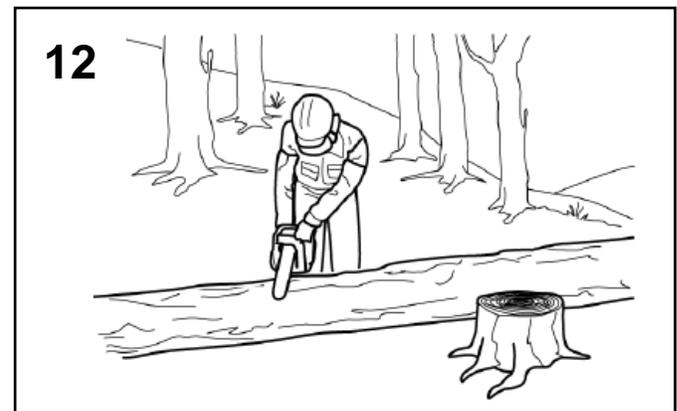
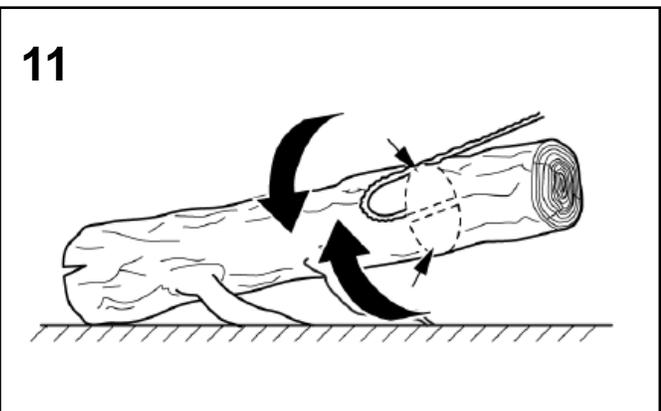
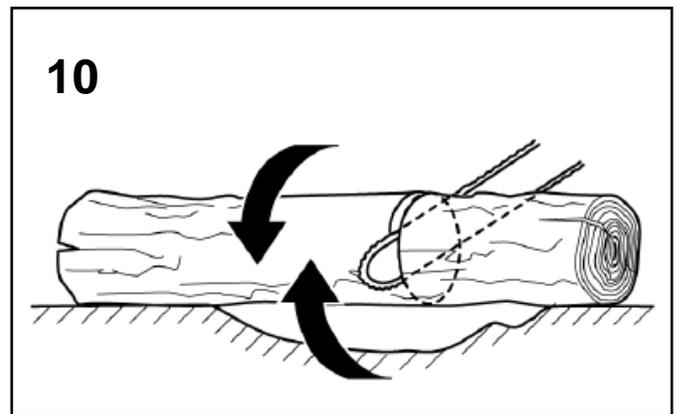
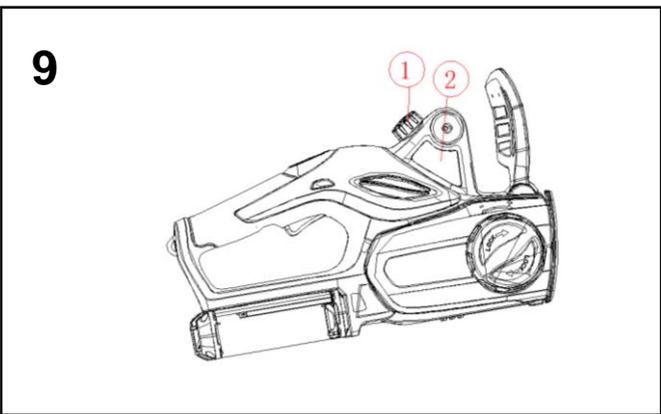
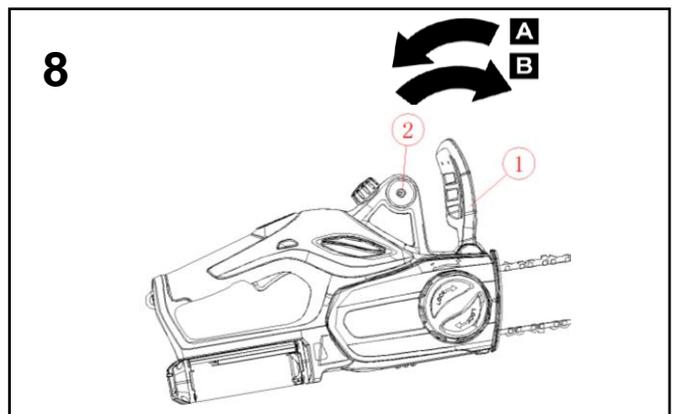
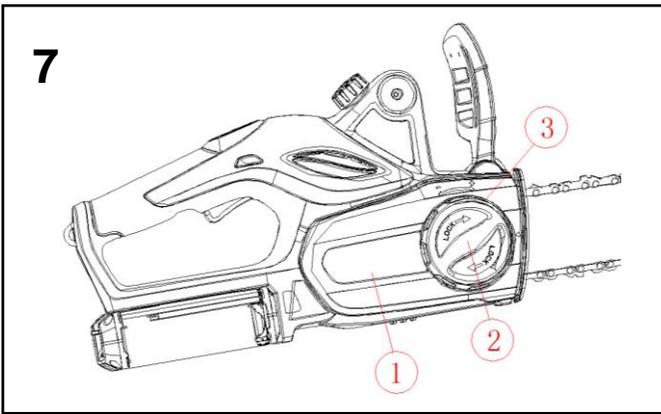
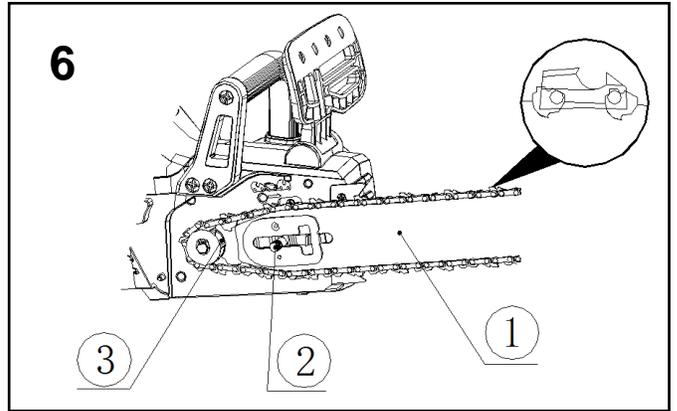
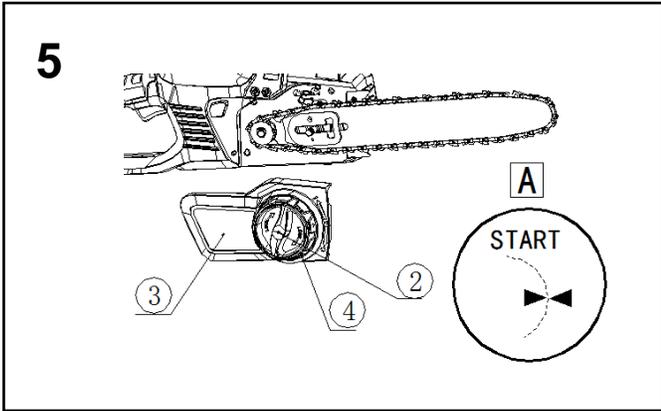


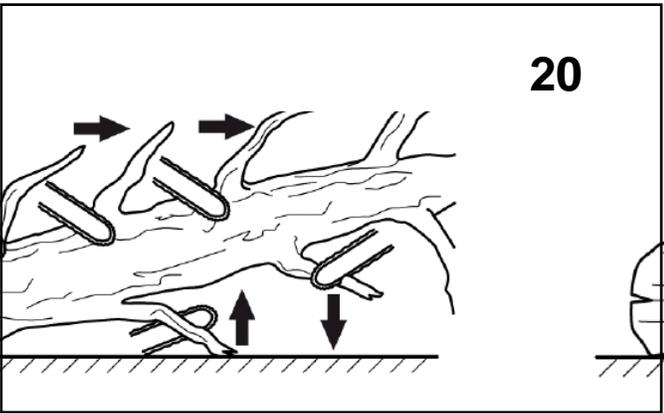
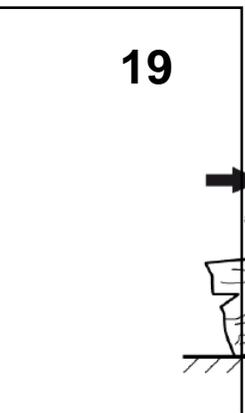
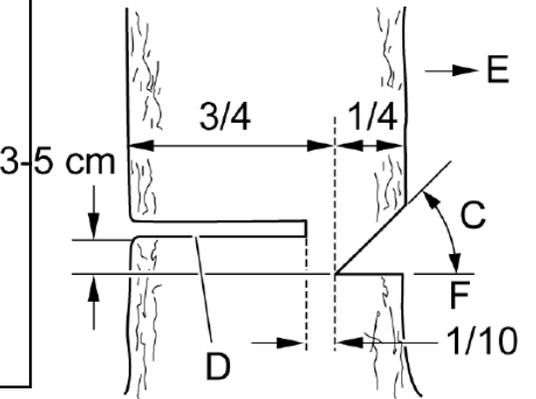
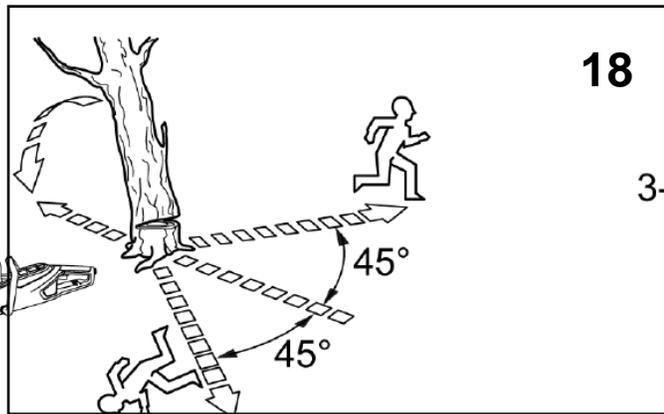
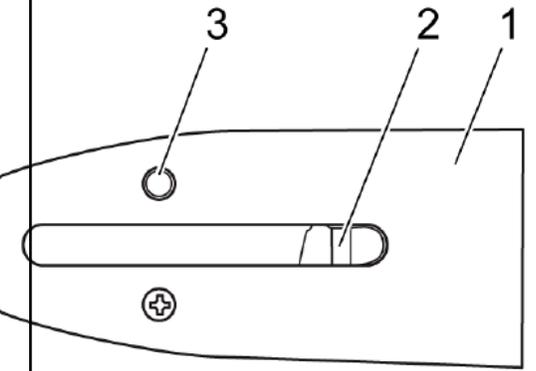
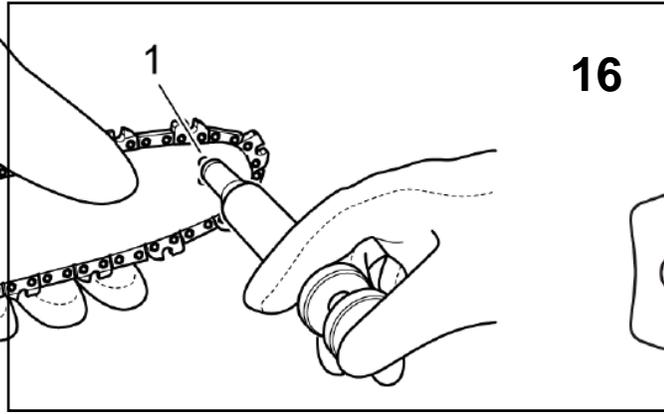
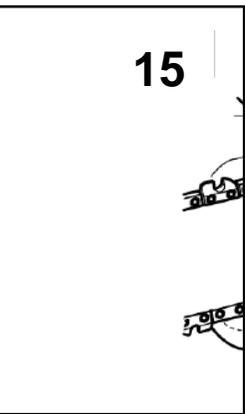
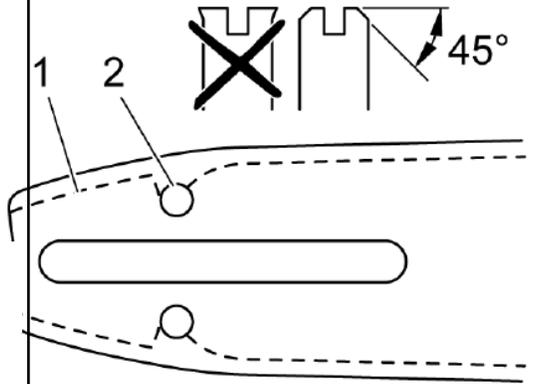
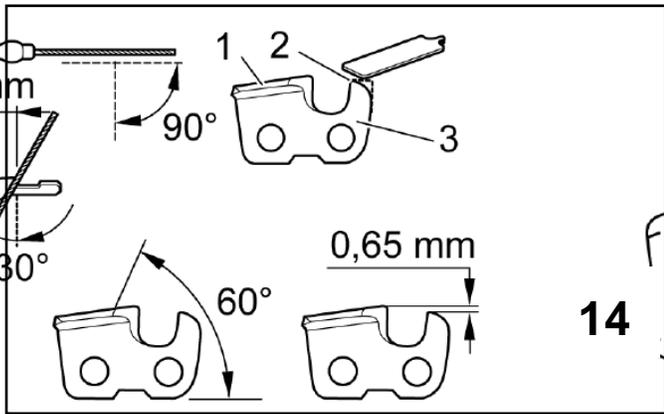
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1. SYMBOLS MARKED ON THE PRODUCT

SYMBOLS	NAME	EXPLANATION
	CE Marking	The product meets the demands and regulations set by the European Community (now European Union).
	WEEE marking	CAUTION! Unusable power tools do not belong with domestic waste. They must be taken to a communal collecting point for environmentally friendly disposal in accordance with local regulations.
	Read the operator's instructions	To reduce the risk of injury. User must read and understand operator's manual before using this product.
	Do not expose to rain	Don't leave your tool exposed to outdoor or rain.
	Wear eye protection	To reduce the risk of you eye, please wear eye protection !
	Wear ear protection	please wear ear protection – to protect your hearing!
	Keep bystanders away	Keep all bystanders away.
	Noise level marking	Your tool noise is not more than 98dB.
	Hold with two hands	Never operate single handed, hold with two hands

Batteries Disposal:

Old batteries must not be added to household waste, but should be disposed of in accordance with the applicable legislation. Take unusable rechargeable batteries to the dealer's or community's battery collection point.

Disposing of the packaging: The packaging is made of cardboard and separately labeled foil which is also recyclable. Take these materials to a recycling centre.

Battery packs /batteries:



Li-Ion

Do not dispose of batteries into household waste. Keep away from water or fire.

Battery packs/batteries must be collected, recycled or disposed of in an environmentally-friendly way.

Only for EC countries:

Defective or dead batteries must be recycled according to the directive 2006/66/EC

2. GENERAL SAFETY RULES

General Power Tool Safety Warnings



WARNING:

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

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

2.1 WORK AREA SAFETY

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) 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
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control. Set a safe working area.

2.2 PERSONAL SAFETY

- a) 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 distraction while operating power tools may result in serious personal injury.
- b) 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.

c) 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. Do not carry power tools with your finger on the power switch or with an energised power tool.

d) 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.

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

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

g) 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.

2.3 POWER TOOL USE AND CARE

a) 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.

b) 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.

c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) 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.

e) 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.

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

g) 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.

2.4 BATTERY TOOL USE AND CARE

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

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

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

d) 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.

2.5 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.

2.6 CHAIN SAW SAFETY WARNINGS

a) 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 distraction while operating a chain saw may cause entanglement of your clothing or body with the saw chain.

b) 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.

NOTE for chain saws designed with the guide bar on the left side, the reference to “right hand” and “left hand” positioning is reversed.

c) Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.

d) Do not operate a chain saw in a tree. Operation of a chain saw while up in a tree may result in personal injury.

e) Always keep a proper footing and operate the chain saw only when standing on a fixed, secure and level surface. Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.

f) 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.

g) Use extreme caution when cutting brush and saplings. The slender material may catch the saw chain and be whipped toward you or pull you off balance.

h) 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.

i) Follow instructions for lubricating, chain tensioning and changing accessories. Improperly tensioned or lubricated chain may either break or increase the chance for kickback.

j) Keep handles dry, clean, and free from oil and grease. Greasy, oily handles are a slippery causing loss of control.

k) 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.

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

a) 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.

b) 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.

c) Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.

d) Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

2.8 SAFETY WARNINGS FOR BATTERY CHARGERS

1. Keep the battery charger away from rain or moisture. Penetration of water in the battery charger increases the risk of an electric shock.

2. Do not charge other batteries. The battery charger is suitable only for charging lithium ion batteries within the listed voltage range. Otherwise there is danger of fire and explosion.

3. Keep the battery charger clean. Contamination can lead to danger of an electric shock.

4. Before each use, check the battery charger, cable and plug. If damage is detected, do not use the battery charger. Never open the battery charger yourself. Have repairs performed only by a qualified technician and only using original spare parts. Damaged battery chargers, cables and plugs increase the risk of an electric shock.

5. Do not operate the battery charger on easily inflammable surfaces (e. g., paper, textiles, etc.) or surroundings. The heating of the battery charger during the charging process can pose a fire hazard.

6. Children should be supervised to ensure that they do not play with the battery charger.

3. PRODUCT DESCRIPTION

3.1 Safety and protective devices



WARNING!

Danger of serious injury from manipulated safety and protective devices

As a result of manipulated safety and protective devices, serious injury can occur when working with the chain saw.

- Never deactivate safety and protective devices.
- Only work with the chain saw if all safety and protective devices function correctly.

Overload protection

The chain saw is equipped with an overload protection which switches off in case of overload. After a cooling-down phase, the chain saw can be switched on again.

Switch-on protection

If the operator applies the throttle quickly several times in succession, the chain saw switches off for a few seconds to protect the electronics and the saw chain. In this case, wait until the chain saw can be switched on again.

Chain brake

The chain saw has a manual chain brake that is triggered by the hand guard, for example if kickback occurs. When the chain brake is triggered, the saw chain is abruptly stopped and the motor switched off.

Designated use

The chain saw is exclusively designed for domestic, DIY and gardening applications. In this sector, the chain saw can be used for light wood sawing work, e.g. for:

- Cutting up timber
- Pruning trees and hedgerows
- Sawing firewood

Because of the electrical drive, the rechargeable battery-chain saw can be used not only on open ground but also in closed rooms for sawing wood. Any application not in accordance with the application described here shall be regarded as misuse.

The chain saw must not be used commercially.



CAUTION!

Danger of injury due to non-designated use!

If wood or other substances embedded with foreign bodies are sawn with the chain saw, injury can result.

- Only use the chain saw for light wood sawing work.
- Before sawing wood, check for foreign bodies, e.g. nails, screws, fittings.

3.2 PRODUCT OVERVIEW (See figure 1)

Item	Component
01/1	Saw chain
01/2	Chain bar
01/3	Quick-tension chain wheel with central lock and rotating ring
01/4	Hand guard
01/5	Handle
01/6	Battery
01/7	Throttle lever
01/8	Locking button
01/9	Rear handle
01/10	Cover for chain sprocket
01/11	Bumper spike
01/12	Cap of the chain oil tank
01/13	Viewing aperture of the chain oil tank

4. ASSEMBLY



WARNING!

Danger of serious injury.

If an incorrectly assembled chain saw is used, serious injury can be caused.

- Only use the chain saw when it has been completely and correctly prepared.
- Before each use, perform a visual inspection in order to check that the chain saw is complete and does not contain damaged or worn components. Safety and protective devices



must be intact.

CAUTION!

Danger of laceration/cutting injuries.

The sharp edges of the saw chain can cause laceration injuries when assembling.

- Before assembly or maintenance always remove the rechargeable battery. See figure 3
- Wear safety gloves when installing the saw chain and the guide rail.

4.1 Installing the guide rail (see figure 5 & 6)

1. Pull hand guard (05/1) in the direction of the handle (05/A) in order to release the chain brake.
2. Turn the central lock (05/2) anti clockwise and remove together with the cover (05/3).
3. Set the guide rail (06/1) on the guide pin (06/2) and push so far back that the saw chain can be mounted.

4.2 Installing the saw chain (figure 5 & 6)

1. Place the saw chain on the chain sprocket (06/3) and in the groove of the chain bar (06/1).

2. Guide the saw chain around the reversing sprocket of the chain bar. The saw chain must hang down slightly on the underside of the chain bar.
3. Put the cover (05/3) and tighten the central lock (05/2) slightly.

4.3 Tightening the saw chain (05, 07)



NOTE

The saw chain has been tensioned correctly when:

- It is in contact with the underside of the chain bar and can be pulled through by hand.
 - It can be lifted by 3 – 4 mm in the middle of the chain bar.
1. Check the seat of the saw chain so that it sits correctly on the chain sprocket and in the chain bar.
 2. Turn the rotating ring (05/4) towards the cover (05/3) so that the two triangles face each other (05/B).
 3. Put on the cover (07/1) and turn the central lock (07/2) clockwise. Do not tighten the central lock fully or turn back by one turn.
 4. Turn the rotating ring (07/3) clockwise until the saw chain has been tensioned correctly as described above.
 5. Turn the central lock (07/2) clockwise until it is fixed in place.

5. STARTING OPERATION



DANGER!

Danger of fatal injury and danger of extremely severe injury.

Lack of knowledge of the safety instructions and operating instructions can lead to extremely serious and even fatal injury.

- Read and follow all safety instructions and instructions for use in these operating instructions as well the operating instructions which are referred to before you start using the chain saw.



WARNING!

Danger of serious injury.

5.1 Charging the rechargeable battery (02)

The rechargeable battery is partially charged. Fully charge the rechargeable battery before using it for the first time. The rechargeable battery can be charged in any charge status. Interrupting charging does not damage the rechargeable battery.



NOTE

For detailed information, follow the separate operating instructions for the rechargeable battery and for the charging unit.

5.2 Inserting the rechargeable battery (figure 3/A)

1. Push the rechargeable battery (03/1) into the rechargeable battery slot (03/2) from above until it engages.

5.3 Pulling out the rechargeable battery (03/B)

1. Press and hold the unlock button (03/3) on the rechargeable battery (03/1).
2. Pull out the rechargeable battery (03/1).

5.4 Checking the chain tension

Frequently check the chain tension, because new saw chains stretch.
At operating temperature, the saw chain stretches and hangs down.



NOTE

The saw chain has been tensioned correctly when:

- It is in contact with the underside of the chain bar and can be pulled through by hand.
- It can be lifted by 3 – 4 mm in the middle of the chain bar.



CAUTION!

Danger of injury due to the saw chain jumping off!

An insufficiently tensioned saw chain can jump off during operation and lead to injury.

- Frequently check the chain tension. The chain tension is too low if the drive links come out of the groove on the underside of the chain bar.
- Re-tension the saw chain properly if the chain tension is too low.

5.5 Testing the function of the chain brake

The chain saw has a manual chain brake that is triggered by the hand guard, for example if kickback occurs. When the chain brake is triggered, the saw chain is abruptly stopped and the motor switched off.



DANGER!

Danger of fatal injury as a result of negligent handling!

Extremely serious injury and even fatal injury can be caused as a result of careless and unexpected movements of the chain saw.

- Pay attention to safety and work with a high level of concentration when using the chain saw.
- Do not press any switch when releasing the chain brake.



WARNING!

Danger of fatal injury and danger of extremely severe injury due to a defective chain brake

Extremely serious injury and even fatal injury of the operator can be caused if the chain brake does not function, e.g. due to kickback by the running saw chain.

- Check the chain brake each time before starting work.
- Do not operate the chain saw if the chain brake is defective. In this case, have the chain saw checked and repaired by a service workshop.

5.6 Function test of the chain brake with the motor switched off (figure 8)

WARNING - Always remove the battery before performing maintenance.

Wear heavy duty gloves

1. To switch off the chain brake, pull (08/A) the hand guard (08/1) in the direction of the handle (08/2). The saw chain can be pulled through by hand.
2. Push the hand guard (08/1) forwards (08/B) to switch on the chain brake. It must not be possible to pull the saw chain through.

5.7 Function test of the chain brake with the motor switched on (figure 8)



NOTE

Release the chain brake each time before switching on the chain saw.

1. Hold the chain saw securely and firmly by the handle and hand grip.
2. Release the chain brake.
3. Switch on the motor.
4. Push the hand guard (08/1) forwards (08/B). The saw chain and motor must stop immediately. If the chainsaw fails the test see the repair centre – Do not use the tool.

5.8 Filling saw chain oil (09)

IMPORTANT!

Danger of damaging the chain saw

The chain saw will be severely damaged if there is too little or even no saw chain oil in the tank or it has dried, such that it does not provide sufficient lubrication.

Dried or sticky saw chain oil can lead to damage to oil-channelling components or the oil pump.

Damage also occurs if used oil is used. The use of used oil leads to environmental damage!

- For start-up work, fill saw chain oil into the tank.
- Do not use any used oil!
- Each time before changing the rechargeable battery, check and fill the tank with saw chain oil.

The saw chain and the chain bar are continuously supplied with oil during operation by means of an automatic oiler system. The saw chain oil protects against corrosion and premature wear. There must always be sufficient saw chain oil in the tank to lubricate the saw chain sufficiently. To lubricate the saw chain and the chain bar, only use environmentally friendly, biodegradable, high-quality saw chain oil. This oil must be transported and stored in approved and appropriately labelled containers.

Each time before starting work or changing the rechargeable battery, check the oil level and replenish the saw chain oil if necessary:

1. Check the oil level in the viewing aperture of the tank (09/1). It must always be possible to see oil. The minimum and the maximum oil level must not be exceeded.
2. Refill saw chain oil via the filler neck (09/2) when necessary.

6. OPERATION



DANGER!

Danger of fatal injury and danger of extremely severe injury.

Lack of knowledge of the safety instructions and operating instructions can lead to extremely serious and even fatal injury.

- Read and follow all safety instructions and instructions for use in these operating instructions as well the operating instructions which are referred to before you start using the chain saw.
- Comply with working time regulations in force in your country.

- Grip the rear saw grip firmly with your right hand (right-handed operator) and the front grip with your left hand and hold them tightly.
- Do not release the grips for as long as the motor is running.
- Do not use the chain saw if you are:
 - Tired
 - Unwell
 - Under the influence of alcohol, medicines and drugs

6.1 Determining the charge status of the rechargeable battery (figure 4)

There is a control panel with a pushbutton (04/1) and LED charge status displays (04/2) on the front of the rechargeable battery.

1. Press the pushbutton (04/1). The charge status displays light according to the charge status of the rechargeable battery.
2. To identify the charge status, see section see *chapter 6.2 "Charge status displays on the rechargeable battery", page 36.*

6.2 Charge status display on the rechargeable battery

Lighting LEDs

Green (04/2)

Green (04/3)and (04/4)

Green (04/4)

Red (04/5)

Charge status of the rechargeable battery

The rechargeable battery is fully charged.

Rechargeable battery is charged to over 50 %.

Rechargeable battery is charged to less than 50 %.

The rechargeable battery is fully discharged or the rechargeable battery has been overheated/undercooled.

6.3 Check the saw chain oil

Procedure see *chapter 5.8 "Filling saw chain oil (09)".*

IMPORTANT!

Danger of damaging the chain saw

The chain saw will be severely damaged if there is too little or even no saw chain oil in the tank or it has dried or is sticky.

Dried or sticky saw chain oil can lead to damage to oil-channelling components or the oil pump.

Damage also occurs if used oil is used. The use of used oil leads to environmental damage!

- Each time before starting work, check that enough saw chain oil is present in the tank.
- If the oil level is low, refill saw chain oil.
- Do not use any used oil!

6.4 Testing the chain brake

Procedure see *chapter 5.5 "Testing the function of the chain brake"*



WARNING!

Danger of fatal injury and danger of extremely severe injury due to a defective chain brake

Extremely serious injury and even fatal injury of the operator can be caused if the chain brake does not function, e.g. due to kickback from the running saw chain.

- Check the chain brake each time before starting work.
- Do not switch the chain saw on if the chain brake is defective, in this case, have the chain saw checked in a service workshop.

6.5 Switching the motor on and off



CAUTION!

Danger of hearing impairment!

The operation of the chain saw causes intense noise that can cause hearing damage.

- Whilst operating the chain saw, wear ear defenders.



NOTE

Release the chain brake each time before switching on the chain saw.

Switching on the motor:

1. Release the chain brake.
2. Press and hold locking button (14/1) with your thumb.
3. Press and hold the on/off switch (14/2).
4. Release the locking button (14/1). It is not necessary to keep the locking button pressed once the chain saw has started. The locking button is intended to prevent inadvertent starting of the chain saw.

Switching off the motor:

1. Release the on/off switch (14/2).

7. WORKING BEHAVIOUR AND WORKING TECHNIQUES



NOTE

We strongly recommend completing a chainsaw operator' training course.



DANGER!

Danger of fatal injury due to inadequate technical knowledge!

Inadequate technical knowledge can result in extremely serious up to fatal injury!

- Only trained and experienced people are allowed to fell trees and lop branches.

DANGER!

Danger of fatal injury from splintered wood!

Wood chips caught up in the chain can cause extremely serious and even fatal injury!

- Remove loose chips and wood splinters from the part to be sawn.

7.1 Safety instructions for work

- Observe country-specific safety regulations, e. g. from the relevant trade associations and authorities for industrial safety.
- Only work in sufficient daylight or artificial lighting.
- Keep the working area free from objects (e. g. off-cuts) – danger of stumbling.
- The user is responsible for accidents involving other people and their property.

7.1.1 Operator

- Young people under 16 years of age and people who do not know the instructions for use are not allowed to use the power tool.
- If you are working with a chain saw for the first time: Have the salesperson or another expert explain the operation of the chain saw, or attend a course.
- To operate the chain saw, you must be rested and in good physical and mental health.
- Take measures to protect yourself against vibration loads.

The actual vibration values may differ from the values specified in the technical data, depending on what the electrical tool is used for. In doing so, take account of the entire working process, i.e. also times during which the electrical tool is operating without load, or is switched off. Suitable measures include regular maintenance and care of the electrical tool and the tool attachments, keeping your hands warm, taking regular breaks, and planning the working sequences effectively.

- Determine the maximum handling period and set breaks in the work according to the vibration value.

7.1.2 Operating times

Heed the country-specific regulations for the operating times of chain saws. The operating times of chain saws can be limited by national and local regulations.

7.1.3 Working with the chain saw



WARNING!

Danger of serious injury.

If an incorrectly prepared chain saw is used, serious injury can be caused.

- Only use the chain saw when it has been fully checked and set up correctly.
- Before each use, perform a visual inspection in order to check that the chain saw is complete and does not contain damaged or worn components. Safety and protective devices must be intact.



WARNING!

Risk of injury due to chain saw starting inadvertently

A chain saw that starts inadvertently can lead to serious injury. Therefore, remove the rechargeable battery during:

- Testing, adjustment work, and cleaning work
- Work on the cutting equipment
- Leaving the chain saw
- Transport
- Storage
- Maintenance and repair work
- Danger
- Never work alone.
- Always keep a first-aid kit to hand in case of accidents.
- Avoid touching metal objects in the ground or which are conductively connected to the ground.
- The personal protective equipment comprises:
 - Protective helmet
 - Hearing protection (e. g. ear protectors, especially when working for than 2.5 hours a day)
 - Protective glasses or a face visor incorporated in the protective helmet
 - Protective trousers with cut protection inlay
 - Sturdy working gloves

- Safety boots with high-grip sole and steel toe caps
- Do not use the chain saw above shoulder height, since safe handling is no longer possible in this way.
- When changing position, switch off the engine and put on the chain guard.
- When chain saws are not in use, always put on the chain guard and remove the rechargeable battery.
- Switch the chain saw off before putting it down.
- Do not use the chain saw for levering or moving wood.
- Only specialist personnel are allowed to saw trunks that are thicker than the length of the chain bar.
- Only start the cut once the saw chain is running, never switch on the chain saw already in the kerf.
- Make sure that no saw chain oil gets onto the ground.
- Do not undertake sawing work in rain, snow, or stormy weather.
- Never disable safety and protective devices.

7.1.4 Danger of kickback



DANGER!

Danger of fatal injury due to kickback!

The operator can be fatally injured by kickback of the chain saw.

- It is essential to comply with the measures stated here in order to avoid any kickback!
- Inspect the material to be sawn for foreign bodies (nails, metal, etc.) and remove them.
- Only operate the chain saw with both hands.
- Do not bend too far forward when working with the chain saw.
- Never cut off several branches at once.
- Do not work unless the saw chain is correctly sharpened and tensioned.
- Never operate the chain saw with your arms outstretched.
- Start the cut with the saw chain running at full speed.
- Do not saw with the tip of the chain bar.
- Always keep the tip of the chain bar in sight.
- Work with increased caution when continuing cuts that have already been started.
- Work with increased caution when cutting undergrowth and young trees.
- Do not saw when standing on a ladder or above shoulder height.
- Use the bumper spike for increased stability when sawing.
- Make sure you are standing securely when sawing.
- It is recommended to saw with the underside of the bar. Work with increased caution when sawing with the top of the bar.
- Do not remove the chain saw from the cut unless the saw chain is running.

7.2 Felling trees

Take the following measures before starting felling work.

- Make sure that no other people, animals or objects are in the danger area.
- The safe distance from other workplaces or objects should be at least 2½ tree lengths.

■ Watch out for power lines and other people's property. If necessary, notify the power supply company or the property owner.

■ Judge the falling direction of the tree. Factors influencing the falling direction of the tree:

- Natural lean of the tree
- Height of the tree
- Branches growing on one side
- Level ground or slope
- Asymmetrical growth, wood damage
- Wind direction and wind speed
- Snow load

■ When working on a slope, always work uphill of the tree to be felled.

■ Establish your escape route in advance, and make sure that there are no obstacles in the way. The escape route should be at an angle of approx. 45° backwards from the falling direction (figure 17).

■ The trunk must be free from growth, branches and foreign bodies (e.g. dirt, stones, loose bark, nails, staples, wire, etc.).

Make two undercuts and one back cut in order to fell a tree.

1. During back cuts and cross-cuts, place the bumper spike firmly against the wood to be cut.

2. Saw the first undercut (18/C) horizontally, then the second undercut at an angle of at least 45° from above. This prevents the chain saw becoming trapped when you make the second undercut. The undercut must be as close as possible to the ground and in the required felling direction (18/E). The depth of the undercut should be about 1/4 of the diameter of the trunk.

3. Cut the back cut (18/D) exactly horizontally opposite to the undercut. The back cut must be made 3-5 cm above the horizontal undercut.

4. Saw in the back cut (18/D) sufficiently deep so that a bridge (18/F) of at least 1/10 the trunk diameter remains between the undercut (18/C) and the back cut (18/D). This bridge prevents the tree from twisting and falling in the wrong direction. The tree should start to fall when the back cut (18/D) approaches the bridge (18/F).

If the tree falls whilst you are sawing:

■ Interrupt the back cut if the tree does fall in the wrong direction or leans back and traps the chain saw. To open the cut and fell the tree, drive in wedges in the direction of the required felling line.

■ Immediately pull the chain saw from the cut, switch it off and put it down.

■ Walk away in the direction of the escape route.

■ Watch out for falling branches and twigs.

5. If the tree remains standing, drive wedges into the back cut in order to cause it to fall in a controlled way.

6. At the end of sawing work, immediately remove your ear defenders and listen out for signals or warning calls.



NOTE

Only use wedges made from wood, plastic or aluminium.



DANGER!

Danger of fatal injury from a falling tree!

Having no escape route when felling a tree represents a danger of serious and even fatal injury!

- Do not start the felling work until you are sure there is an unobstructed escape route away from the tree to be felled.



DANGER!

Danger of fatal injury from an uncontrollably falling tree!

Uncontrolled falling trees can lead to extremely serious and even fatal injury!

- In order to guarantee controlled felling of a tree, leave a bridge between the undercut and the back cut. The length of this bridge should be approx. 1/10 of the trunk diameter.
- Do not carry out any felling work in windy conditions.

7.3 Branch lopping

Heed the following points during this work:

- Support the chain saw against the tree trunk during the work.
- In the preliminary phase, leave larger, downward- pointing branches that are supporting the tree (figure 19).
- Cut off smaller branches with one cut.
- Pay attention to branches under tension, and saw through these from underneath upwards in order to avoid the chain saw becoming trapped (figure 19).
- Do not saw off free-hanging branches from underneath.
- Only experienced or trained people should make plunge cuts, longitudinal cuts and boring cuts (figure 18).

10.4 Cross-cutting

Heed the following points during this work:

- When working on a slope, always stand uphill from the tree trunk, because it could roll away (19).
- Guide the chain saw so that there is no part of your body in the extended sweep arc of the saw chain.
- Position the bumper spike directly adjacent to the cut edge and allow the chain saw to pivot about this point. Do not exert any pressure at the end of the cut.
- Make sure that the saw chain does not touch the ground.
- At the end of the cut, wait for the saw chain to come to a halt before you remove the chain saw.
- Always switch off the motor of the chain saw before you go to the next tree. The entire length of the tree trunk is in contact with the ground:
- Saw through the tree trunk from above, without cutting into the ground (figure 20). Tree trunk is lying raised at one end:

- To prevent the chain saw becoming trapped and the wood splintering, first saw through 1/3 of the trunk diameter from below, then saw through the remainder from above, down as far as the cut made from underneath (10).

Tree trunk is lying raised at both ends: To prevent the chain saw becoming trapped and the wood splintering, first saw through 1/3 of the trunk diameter from above, then saw through the remainder from underneath, up as far as the cut made from above (11).



DANGER!

Danger of fatal injury due to kickback!

The operator can be fatally injured by kickback of the appliance.

- It is essential to comply with the measures in order to avoid any kickback.

7.5 Cutting converted timber (12)

Heed the following points during this work:

- Use a secure cutting surface (sawing trestle, wedges, beams).
- Make sure you are standing securely and that your bodyweight is evenly distributed.
- Secure logs to prevent them twisting.
- Only start the cut once the saw chain is running. Never switch on the chain saw already in the kerf.
- Do not secure the wood with your foot and do not get another person to hold it.

8. TRANSPORT

Before transporting, carry out the following measures:

1. Switch off the chain saw
2. Put on the chain guard
3. Remove the battery
4. Chain oil will be released from the saw after use. Protect accordingly.

Only carry the chain saw using the handle. When doing so, the chain bar must point



downwards.

WARNING!

Danger of fatal injury and danger of extremely severe injury.

During transport, a running saw chain can lead to extremely serious and even fatal injury.

- Never carry and transport the chain saw with the saw chain running.
- Before transporting, carry out the measures mentioned above.

In vehicles: Secure the chain saw against tipping over, damage and leakage of chain oil.

9. MAINTENANCE AND CARE

The chain saw complies with all relevant safety standards. Repairs are only allowed to be performed by qualified specialists, and with the exclusive use of genuine spare parts.

- After each use, check the chain saw for wear and renew any damaged components.
- Do not get the machine wet or expose it to moisture. Clean plastic parts with a cloth and do not use any cleaning agents or solvents.
- Clean the cooling air slots if they are blocked.

- Do not spray the chain saw with water and do not use a high-pressure cleaner.
- Only use spare parts specified by the manufacturer.



WARNING!

Risk of injury due to chain saw being started inadvertently

A chain saw that is started inadvertently can lead to serious injury.

- Before all maintenance and care work, remove the rechargeable battery.
- Wear protective gloves.

9.1 Sharpening the saw chain (figure 13)

Do not work with a blunt or damaged saw chain. The consequences include physical strain, a poor cutting result and high levels of chain wear.



CAUTION!

Danger of injury from the saw chain!

The sharp edges of the saw chain can cause serious laceration injuries.

- Wear protective gloves when re-sharpening the saw chain.



NOTE

Inexperienced chain saw operators are recommended to have the saw chain sharpened by a specialist at service centre.

To achieve an optimum cutting result, it is necessary for the saw chain to be re-sharpened at regular intervals.

A correctly sharpened saw chain reduces the danger of kickback and prevents high levels of wear.

The saw chain must be re-sharpened when sawdust is produced during cutting, or if the saw has difficulty cutting through the wood. When a saw chain is sharp, it generates large and long chips.

1. Switch off the chain saw and remove the rechargeable battery.
2. Check the chain tension and adjust it if necessary.
3. Only use a suitable tool for sharpening: Round chain file $\varnothing = 4.0$ mm, file guide, chain gauge.

These tools are available from specialist retailers.

4. The individual chain links consist of a saw link (13/3), saw tooth (13/1) and a depth limiter (13/2).
5. Guide the file from the inside to the outside of the cutting tooth, exerting slight pressure and holding it perpendicular (13). A file guide is helpful for handling the file correctly. 2 – 3 file strokes are sufficient.
6. When sharpening, maintain the angles (13) on the cutting tooth and the height of the depth limiter (13/2) in relation to the cutter. Make sure that all cutting teeth on the chain have equally length and width after sharpening.
7. If using the prescribed tools and the correct handling, the specified angle values will be obtained automatically. The values can be checked with a chain gauge.
8. At the end, slightly round off the front part of the depth limiter (13/2).

Sharpen the saw chain frequently, without removing much material while doing so. After sharpening 3 to 4 times yourself, have the saw chain resharpened by a specialist workshop. This also involves resharpening the depth limiter.

Renew the saw chain as soon as the minimum cutting tooth length of 4 mm (13) is reached.

IMPORTANT!

Damage to the machine due to incorrect sharpening!

Uneven cutting teeth mean that the chain runs roughly and may even break. All cutting teeth must have the same length and width after sharpening.

- Sharpen the saw chain properly.



DANGER!

Danger of fatal injury due to kickback!

The operator can be fatally injured by kickback of the chain saw.

- Sharpen the saw chain properly.

9.2 Cleaning the chain sprocket interior

Thoroughly clean the chain saw after each use.

1. Remove the rechargeable battery and place the chain saw on a stable base.
2. Unscrew the sprocket cover.
3. Clean the inside with a suitable brush.
4. Remove the saw chain and take out the chain bar.
5. Clean the groove in the bar and the oil inlet hole.

9.3 Changing over the quick-tension chain wheel (16)

1. Remove the guide rail (16/1).
2. Unscrew the Phillips screw (16/3) and release the adapter sheet metal from the guide rail with the tensioning hook (16/2).
3. Turn the guide rail around the longitudinal axis.
4. Attach the adapter sheet metal to the chain bar with the tensioning hook again and fix in place with the Phillips screw again.
5. Mount the chain bar again, see *section 4.1 "Installing the guide rail (05, 06)"*

9.4 Checking, turning and greasing the guide rail (14, 15)

Checking the guide rail:

Regularly check the guide rail for damage. Remove any projecting burrs (14). Turning the guide rail:

The chain bar must be turned over after each chain sharpening and chain change in order to avoid one-sided wear.

1. Change over the quick-tension chain wheel on the guide rail, see *section 9.3 "Changing over the quick-tension chain wheel (16)"*
2. Turn the guide rail.

Greasing the guide rail:

1. Carefully clean groove in bar (14/1) and oil inlet hole (14/2).
2. Carefully clean lubricating hole (15/1) from both sides.

3. Use a suitable grease gun to pump in sufficient grease from both sides in succession until the grease emerges evenly at the tips of the sprocket. Keep turning the sprocket when doing this.

10. STORAGE

Thoroughly clean the chain saw after each use. Store it in a dry, lockable place out of the reach of children. Remove the battery. Chain oil will continue to be released, use an absorbent material under the saw when storing.

Carry out the following maintenance when storing for longer periods (30 days or more):

- Switch off the chain saw and remove the rechargeable battery.
- Empty the oil tank for the saw chain oil.
- Remove the saw chain and guide rail, clean it and spray it with rust-proofing oil.
- Thoroughly clean the chain saw and store it in a dry place.

IMPORTANT!

Danger of damaging the chain saw

Dried or tacky saw chain oil can lead to damage to oil-channelling components or the oil pump after lengthy storage.

- Remove the saw chain oil from the chain saw before each extended period of storage.

11. ENVIRONMENTALLY FRIENDLY DISPOSAL

According to EU directive 2012/19/EU on electric and electronic equipment and its implementation into national law, all electric tools must be separately collected and environmentally friendly recycled. Alternative disposal: If the owner of the power tool does not return the tool to the manufacturer, he is responsible for proper disposal at a designated collection point that prepares the device for recycling according to national recycling laws and regulations. This does not include accessories and tools without electric or electronic components.

12. TROUBLESHOOTING

The following chart lists problem symptoms, possible causes and corrective action, if your garden product does not operate properly. If these do not identify and correct the problem, contact your service agent.



WARNING: Switch off and remove the battery prior to any troubleshooting.

Fault	POSSIBLE CAUSE	Remedial Action
Motor does not run or runs intermittently	Chain brake engaged	Before starting, make sure the hand guard is in its most rearward position (chain brake disengaged). For correct hand guard position, see "Starting The Saw" in this manual
	Battery discharged	Check the charge-level indicator on the battery. If no green indicator lights are on recharge
	Trigger lock-out not pressed	Trigger lock-out must be depressed. See "Starting The Saw" in this manual
	Battery pack not fully inserted	Clean debris from the battery port and terminals with a clean dry cloth or non-conductive brush
	Debris inside cover	Remove battery pack, then remove side cover and clean out debris.
	Battery pack cold	Allow battery to warm above the minimum operating temperature of 10°F (-12°C).
Motor runs, but chain does not rotate	Chain not engaging drive sprocket	Reinstall the chain, making sure the drive links on the chain are fully seated on the sprocket. See "Maintenance and Cleaning" in this manual for
Chain brake does not engage	Debris preventing full movement of hand guard	Clean debris from external chain brake mechanism
	Possible chain brake malfunction	Contact an approved service location immediately
Chain saw does not cut properly	Insufficient chain tension	See "Tensioning Instructions" in this manual
	Chain installed backwards	See "Replacing the Bar and Chain" in this manual
	Worn chain	Replace both the chain and bar. They are designed to wear at the same rate
	Dry or excessively	Check the oil level. Refill oil reservoir if necessary. See "Assembly" in this manual. Check for a clogged oil system. A small amount
	Chain not in bar	See "Replacing the Bar and Chain" in this manual.

13. WARRANTY

This product is warranted in accordance with legal regulations for a 24 month period effective from the date of purchase by the first user.

This product will not be covered if used in a commercial application.

This warranty covers all material or production failures, it does not include: defects from normal wear and tear, parts such as, bearings, brushes, cables, air cleaning elements, brake pad, clutch disc, tyre, wheel, recoil starter rope, belts, cutter blades, plugs, lubricant oils and grease or accessories. Damage or defects resulting from abuse, accidents or alterations, natural fading of painted or plated surfaces, sheet peeling and other natural deterioration.

Any damage that occurs from the use of non-genuine Cobra parts will not be covered. We reserve the right to reject any claim where the purchase cannot be verified or when it is clear that the product was not maintained properly. (Clean ventilation slots, carbon brushes and serviced regularly)

Expenses incidental to the warranty claim that are not covered;

- Compensation for loss of time, commercial loss or rental costs of substitute product.
- Costs incurred for transportation to and from the dealership.

Any damage that occurs from the following will not be covered; exposure of the product to smoke and soot, chemical agents, bird droppings or other animal waste, seawater, sea breeze, salt or other environmental phenomena.

Any damage resulting from operating methods other than those indicated in the owner's manual will not be covered.

Your purchase receipt must be kept as proof for date of purchase. Your un-dismantled product must be returned to your dealer in an acceptably clean state, accompanied by your proof of purchase.

Please Register Your Product:

Please take a few minutes and register your purchase with Cobra. You can register by going online to: www.cobragarden.co.uk and clicking on Product Registration.

14. EC-DECLARATION OF CONFORMITY

EC Declaration of Conformity	
We herewith declare,	Cobra Garden Machinery, Henton & Chattell Ltd, London Road, Nottingham NG2 3HW UK
That the following machine complies with the appropriate basic safety and health requirements of the EC Directive based on its design and type, as brought into circulation by us.	
In case of alteration of the machine, not agreed upon by us, this declaration will lose its validity	
Product	Cordless Chainsaw
Machine Type	CS1024V (CS11-2410D)
Rated voltage	24V d.c.
Bar length	250mm
Measured Sound Power level	95dB(A)
Guaranteed Sound Power level	98dB(A) Notified Body for EC Directive 2000/14/EC:0036 TüV SÜD Industrie Service GmbH Westendstrasse 199 . 80686 München . Deutschland
Applicable EC Directives	EC Directive of Electromagnetic Compatibility 2014/30/EU EC Machinery Directive 2006/42/EC EC Directive of noise emission 2000/14/EC RoHs Directive 2011/65/EU
Applicable Harmonized Standards	EN 60745-1 EN 60745-2-13 EN 55014-1 EN 55014-2
Authorized Signature/Date/Place	 Peter J. Chaloner 05/12/2020
Title of Signatory	Managing Director
Name and address of the person authorized to compile the technical file	Cobra Garden Machinery, Henton & Chattell Ltd, London Road, Nottingham NG2 3HW UK