

KLUTCH™

2X20V BRUSHLESS 16" CHAINSAW KIT

Owner's Manual



For maximum performance,
use 4.0Ah battery or greater
(Sold Separately)



WARNING: Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item # 6151900

READ & SAVE THESE INSTRUCTIONS

Thank you very much for choosing a KLUTCH product!

For future reference, please complete the owner's record below:

Serial Number/Lot Date Code: _____

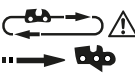
Purchase Date: _____

Save the receipt, warranty, and this manual. It is important that you read the entire manual to become familiar with this product before you begin using it.

This 2X20V Brushless 16" Chainsaw Kit designed for certain applications only. Northern Tool and Equipment is not responsible for issues arising from modification or improper use of this product such as an application for which it was not designed. We strongly recommend that this product not be modified and/or used for any application other than that for which it was designed.

For technical questions, please call 1-866-915-8626.

SYMBOLS

	Warning / Attention!
	Please read the instructions carefully before starting the machine.
	Take the replaceable battery from the appliance before any extension, cleaning and servicing works.
	Warning against dangerous kickback
	Keep distance from others. Keep others out of danger zone.
	Always work with both hands!
	Do NOT use one-handed.
	Keep dry at all times. Never expose tool to rain.
	Keep the machine out of reach of children.
	Fire, sparks, naked flames and smoking are forbidden.
	Chain lubrication
	Chain running direction
	Observe direction of travel of the saw chain. Attention! Read the instruction manual.
	OPEN CLOSE
	Groove width
	Wear a protective helmet
	Wear safety goggles. Wear ear protectors.
	Wear protective gloves
	Wear safety cut through resistant shoes with safety sole and steel toe
	Wear protective clothing with cut through resistant ply !
	Any damaged or disposed devices must be delivered to appropriate collection centers.

GENERAL POWER TOOL SAFETY INSTRUCTIONS

WARNING: Read all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Retain this manual for future reference.

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.

2. Electrical safety

- a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded surfaces power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. 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.
- c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d. 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.
- e. 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.
- f. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3. Personal safety

- a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use power tools 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.
- b. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, nonskid 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. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- 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 proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 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.

4. Personal protection

- a. Risk of eye injury. Wear safety glasses or similar eye protection. Use a face or dust mask whenever the operations may produce dust or flying particles.
- b. Wear ear protection whenever the sound level seems uncomfortable.
- c. Do not overreach
- d. Keep proper footing and balance at all times.

GENERAL POWER TOOL SAFETY INSTRUCTIONS

5. Use the appropriate tool

- a. The intended use is described in this instruction manual. Do not force small tools or attachments to do the job of a heavy-duty tool.
- b. The tool will do the job better and safer at the rate for which it was intended. The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury. Do not force the tool.

6. Maintain tools with care

- a. Keep cutting tools sharp and clean for better and safer performance.
- b. Follow the instructions for maintenance and changing accessories.
- c. Keep handles and switches dry, clean, and free from oil and grease.

7. Check for damaged parts

- a. Before using the tool, carefully check it for damage to ensure that it will operate properly and perform its intended function.
- b. Check for misalignment and seizure of moving parts, breakage of parts and any other conditions that may effect its operation.
- c. Have any defective parts repaired or replaced by an authorized repair agent. Do not use the tool if any part is defective.
- d. Never attempt any repairs yourself.

8. 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 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.

9. Remove the battery

- a. Reduce the risk of injury to persons. Remove the battery pack when the tool is not in use, before changing any parts of the tool, accessories or attachments, and before cleaning or servicing.
- b. Avoid unintentional starting
- c. Do not carry the tool with a finger on the on/off switch.

10. Battery

- a. Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- b. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130°C(266F) may cause explosion.
- c. Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

11. Never carry the charger by its cord or pull it to disconnect from the socket. Keep the cord away from heat, oil, and sharp edges.

GENERAL POWER TOOL SAFETY INSTRUCTIONS

12. 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.

GENERAL 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 saws 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.

a) **Hold the chain saw by insulated gripping surfaces only, because the saw chain may contact hidden wiring.** Saw chains contacting a “live” wire may make exposed metal parts of the chain saw “live” and could give the operator an electric shock.

b) **Wear eye protection. Further protective equipment for hearing, head, hands, legs and feet is recommended.** Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.

c) **Do not operate a chain saw in a tree, on a ladder, from a rooftop, or any unstable support.** Operation of a chain saw in this manner could result in serious personal injury.

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

e) **When cutting a limb that is under tension, be alert for spring back.** When the tension in the wood fibre is released the spring loaded limb may strike the operator and /or throw the chain saw out of control.

f) **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.

g) **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.

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

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

j) **Cut wood only. Do not use chain saw for purposes not intended.** For example: do not use chain saw for cutting metal, plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.

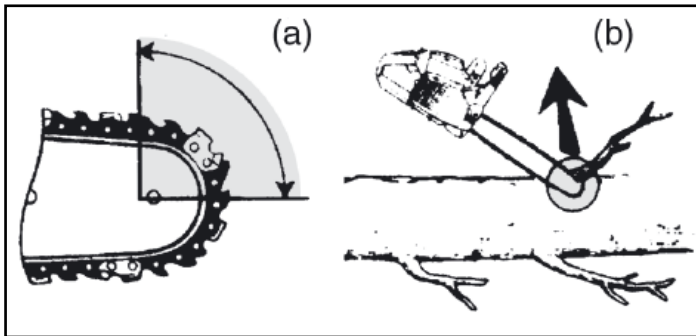
k) **Follow all instructions when clearing jammed material, storing or servicing the chain saw.** Make sure the switch is off and the battery pack is removed. Unexpected actuation of the chain saw while clearing jammed material or servicing may result in serious personal injury.

GENERAL CHAIN SAW SAFETY WARNINGS

Additional safety instructions

- Follow the maintenance, control and service instructions in this instruction manual carefully. Damaged safety equipment and parts must be repaired by a qualified repair person.
- When servicing a power tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of shock or injury.
- It is recommended that a first-time user at least practice the cutting of logs on a saw log or frame.
- Lay the power cord so that it is not caught by branches or similar during sawing.
- For sawing work on slopes, always stand in the area above the log. To keep total control while “sawing through”, reduce the pressure at the end of the cut without loosening your grip on the handles of the chainsaw. Make sure the saw chain does not touch the ground. After completing the cut, wait until the chainsaw has come to a standstill before removing the chainsaw. Always shut off the motor of the chainsaw before switching between trees.
- Dirt, stones, loose bark, nails, clips and wires must be removed from the tree.

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 chain saw 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 guide bars and chains may cause chain breakage and/or kickback.
- Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

GENERAL CHAIN SAW SAFETY WARNINGS

Residual risks

There will always be residual risks even if you operate this device according to the instructions. The following hazards may occur in connection with the type and design of this device:

- Hearing damage if suitable ear protection is not worn.
- Health injuries resulting from the effect of hand/arm vibration in the event that the tool is used over a longer period of time or is not used and maintained properly.
- Cutting injuries

WARNING! Danger due to electromagnetic field generated while the tool is in operation. Under certain circumstances, this field may negatively affect active or passive medical implants. In order to reduce the danger of serious or fatal injuries, we recommend that individuals who wear medical implants should consult their doctor and the manufacturer of the implant before operating the tool.

Preparation

WARNING! Risk of injury due to unintentional start-up. Only insert the battery into the device once the device is fully prepared for use.

Safety devices

The following safety devices are provided to protect the user and the device:

Rear handle (1) with rear hand guard (15)

- Protects the hand from branches, twigs and if the saw chain jumps off.

On/Off switch (2) with immediate chain stop

- The device switches off immediately once the on/off switch is released.

Switch lock (3)

- The switch lock must be unlocked in order to switch on the device.

Chain brake lever/front hand protection (5)

- The saw chain does not run when the chain brake is locked into place.
- Stops the saw chain immediately in the event of a kickback.
- Lever can also be operated manually.
- Protects the operator's left hand if it slips off the front handle.

Saw chain (6) with low kickback

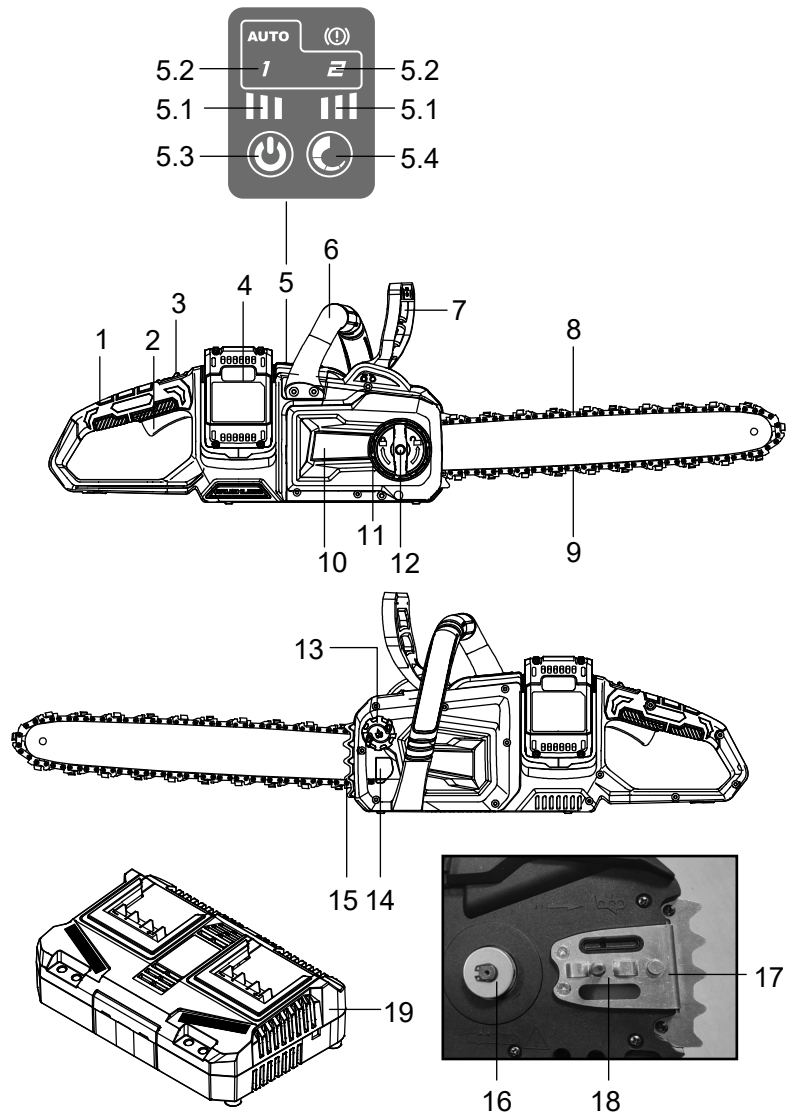
- Helps to absorb kickbacks thanks to specially developed safety devices.

Chain catch (8)

- Increases stability when making vertical cuts.
- Makes sawing easier.

FUNCTION

1. Rear Handle
2. On/Off Switch
3. Switch Lock
4. Battery
5. Switch Control Panel
 - 5.1 Charge level indicator
 - 5.2 Chain speed indicator
 - 5.3 On/off button
 - 5.4 Chain Speed Button
6. Front Handle
7. Chain Brake Lever/Front Hand Protection
8. Saw Chain
9. Guide Bar
10. Sprocket Cover
11. Saw Chain Tensioning Knob
12. Sprocket Cover Lock Screw Lock Screw
13. Oil Tank Cover
14. Oil Level Indicator
15. Chain Catch
16. Sprocket
17. Lug
18. Guide Bar bolt
19. Dual Port Charger



SPECIFICATION

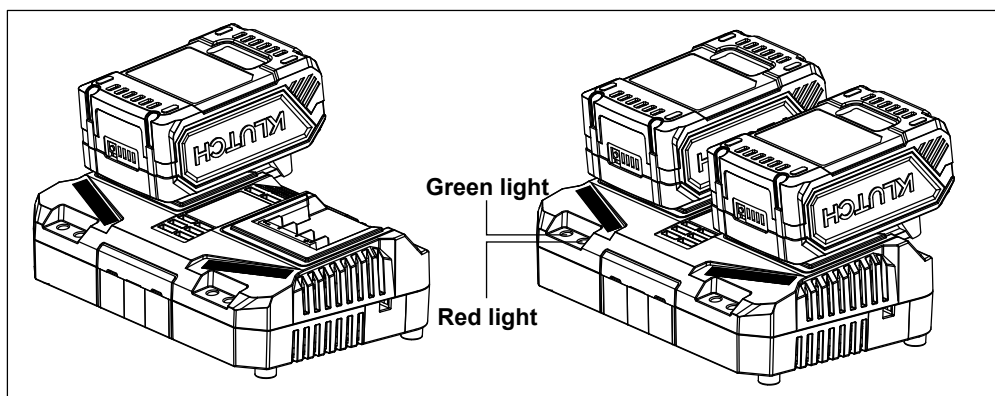
Rated Voltage: 2x20V Max
 Motor Type: Brushless motor
 No load speed: 8,100/13,500 RPM
 Chain speed: Low-15m/s, High-25m/s
 Bar Length: 16"
 Chain Tension: Tool Free
 Auto Lubricate: Yes

Include: 1pc chain saw, 2pc 4.0Ah 20V battery, 1pc 2.0A+2.0A Dual Port Charger

OPERATION

CHARGING BATTERIES

1. Place the Battery Pack on a dry fireproof surface in a room where the temperature is from 50° F to 104° F.
Note: If recharging a newly spent Battery Pack, allow it to cool completely before charging.
2. Examine the Battery Pack. It must be an undamaged 20V lithium-ion type Battery Pack. Do not charge a cracked, open, or leaking Battery Pack, or charge a non-recommended type of Battery Pack.
3. The Battery Pack's terminals are designed to fit this Charger specifically. If the Battery Pack does not fit the Charger properly, do not try to insert it. Do not force a Battery Pack into the Charger.
4. Make sure the power supply is normal household voltage, 120 volts, AC only, 60 Hz.
5. Connect the charger to a power supply.
6. Slide the Battery Pack onto the Charger.
7. The battery pack may become slightly warm to the touch while charging. This is normal and does not indicate a problem.
8. After charging is complete, the green LED will remain on while the charger is in Energy Save mode.
9. Charger will periodically wake from Energy Save mode to ensure the battery pack remains in a fully charged state.
10. To remove the battery pack from the charger, depress the latches on the top of the battery pack and separate battery from charger.



CHARGING A HOT BATTERY PACK

When using a tool continuously, the battery pack may become hot. A hot battery pack may be placed directly onto the charger port but charging will not begin until the battery temperature cools to within acceptable temperature range. When a hot battery pack is placed on the charger, the red LED will begin flashing. When the battery pack cools, the charger will automatically begin charging.

The LED lights on charger show different status as below.

LED FUNCTIONS			
RED LED	GREEN LED	STATUS	ACTION
Off	On	Power	Ready to charge battery pack.
Off	Flashing	Charging	Battery is being charged.
Off	On	Fully charged	Disconnect charger from power supply and remove battery pack from charger.
Flashing	Off	Hot battery	The charger will recover to charge when the temperature drops to 104° F (40°C).
On	Off	Battery defective	Battery pack or charger is defective

OPERATION

Caution

Fully charge battery before first use.

Avoid short periods of charging. Only charge battery pack when it completely runs out.

In order to extend the battery life, fully charge it after each use and ensure that it is charged every three months.

Avoid storing batteries in cold places as low temperatures may cause them to fail.

Proper use

This device is only intended for the following use:

- Sawing wood The device is not intended for any other types of application. This typically includes cutting masonry, plastic, stone, metal, food or wood containing foreign objects (e.g. nails or screws).

The device is intended for use by adults. Children under the age of 16 may not use the device, except under supervision.

The chainsaw may only be used by one person. The user must wear appropriate personal protective equipment (PPE). The chainsaw must be held with the right hand on the rear handgrip and the left hand on the front handgrip.

Before using the device, the user must read and understand all information and instructions in the instruction manual.

Any other use that is not expressly permitted in this instruction manual may pose a serious hazard to the user and result in damage to the device. The operator or user of the machine is responsible for any accidents or personal injury and/or material damage to third parties or their property. The machine is intended to be used by DIY. It was not designed for heavy commercial use. The warranty is void in the case of commercial use. The manufacturer is not liable for damage caused by improper use or incorrect operation.

Safety Device Explanation

1. Front Hand Protection – A protection that protects your hand on the Front Handle from the Saw Chain.
2. Chain Brake – A mechanical braking device designed to quickly stop the Chainsaw and Chain in the event of kickback. If kickback occurs, this safety feature is activated when the operator's hand strikes the Hand Guard / Chain Brake Lever and pushes it forward, stopping the Chain.
3. Switch Lock – A movable stop that prevents the unintentional operation of the Trigger until manually activated.
4. Low-Kickback Chain – A Chain that complies with the kickback performance requirements of ANSI B175.1-1991 when tested on a representative sample of chainsaws.

OPERATION

Assembly

1. Checking the chain brake

NOTICE! The saw chain does not rotate when the chain brake is locked into place.

1. Place the chainsaw on a firm, level surface. It must not touch any objects.
2. Hold the tool firmly with both hands, with your right hand on the rear handle (1) and your left hand on the front handle (6). Your thumb and fingers must tightly clasp the grips.
3. Switch on the tool. A warning tone sounds. The indicator for the inserted chain brake flashes. The chain brake functions.
4. Release the on/off switch (2).
5. Draw the chain brake lever(7) in the direction of the front handle(6) to close the chain brake.
6. Push the chain brake lever toward the guide bar to open the chain brake.

WARNING! Risk of injury from the trailing saw chain. Do not use the chainsaw if the chain brake does not work properly. Contact the service center.

2. Installing the saw chain and guide bar

WARNING! To prevent serious injury from accidental operation:

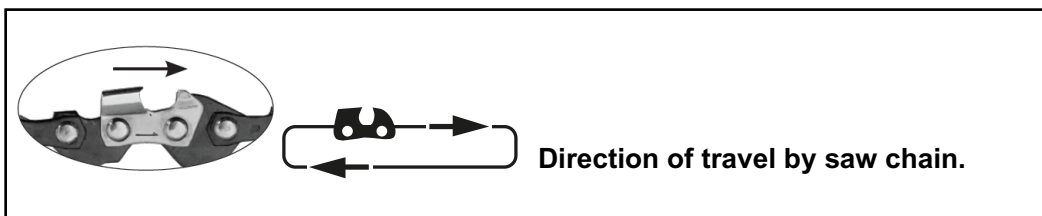
Make sure that the trigger is in the off-position and remove the battery Pack before performing any procedure in this section.

Note: New saw chains often need to be tensioned several times during first use. Check a new saw chain's tension often when first using.

Follow the directions in the following sections for installing the guide bar and saw chain, for checking and adjusting saw chain tension, and for replacing the saw chain when necessary.

Caution! Wear heavy-duty work gloves when handling saw chain.

1. Before first use: Soak saw chain in bar and chain oil (sold separately) overnight.
2. Place the tool on a level surface.
3. Release the guide bar cover lock screw(12) and take off the sprocket cover (10).
4. Spread out the saw chain (8) in a loop so that the cutting edges are aligned in a clockwise direction. Use the symbol below the sprocket (16) as a guide for aligning the saw chain (8).



5. Place the saw chain (8) in the guide bar. To assemble, hold the guide bar (9) tilted upwards at an angle of approx. 45 degrees in order to be able to guide the saw chain (8) more easily onto the sprocket (16).
6. Place the saw chain over the drive sprocket(16). Check again that the saw chain cutters are aligned properly and the saw chain drive links are seated completely in the slot of the guide bar. It is normal for the saw chain (8) to sag.
7. Put the sprocket cover(10) back in position.
8. Tighten the guide bar cover lock screw(12) slightly.

OPERATION

9. Pre-tension the saw chain (8) by turning the Saw chain tensioning knob(11) .
10. Tighten the guide bar cover lock screw(12) of the guide bar cover.

CAUTION! The chainsaw can be re-oiled. Please be aware that the chainsaw will regrease after use and may leak oil if it is stored on its side or upside down. This is a normal occurrence and is caused by the ventilation opening on the top edge of the tank which is a necessary component; this is not grounds for complaint. Since every chainsaw is inspected and tested using oil during manufacture, a small amount of oil may remain in the tank after emptying, which may slightly dirty the housing during transport.

Please clean the housing with a cloth.

Prior to changing the saw chain, the groove of the guide rail must be cleaned of dirt because dirt deposits can cause the saw chain to break out of the rail. The deposits can also absorb the chain oil. The result would be that the chain oil does not reach the underside of the rail – or only does so to a limited extent – thereby reducing lubrication.

3. Adjusting saw chain tension

Check the chain tension before starting work and at intervals of approx. 10 minutes and correct it if necessary. The saw chain warms up when working with the saw and thus expands slightly. These “expansions” can be expected especially from newer saw chains.

Chain tension and chain lubrication have a significant impact on the service life of the saw chain. The chain can be re-adjusted after a maximum of 5 cuts.

- Loosen the Guide Bar Cover Lock Screw(12) on the Guide Bar Cover. It is not necessary to remove the Guide Bar Cover to adjust chain tension.
- Turn the Saw Chain Tensioning Knob clockwise to increase chain tension and counterclockwise to decrease tension.
- The saw chain is properly tensioned when it does not hang from the underside of the blade bar and cannot be moved around by a gloved hand.
- When pulling on the saw chain with 9 N (approx. 1 kg) of force, the saw chain and blade bar should not be separated by a distance of more than 2 mm(0.078")(Fig.1).

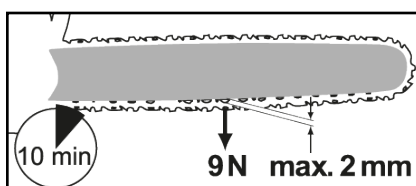


Fig.1

NOTICE! Do not re-tension or change the saw chain when it is hot because it shrinks slightly once it has cooled down. If this is not observed it can lead to damage on the guide rail or the engine because the saw chain is now too taut on the blade bar.

Regularly tightening the saw chain provides safety for the user and reduces and/or prevents wear and chain damage.

4. Filling with chain oil

NOTICE! If the chainsaw is used with too little oil, the cutting performance and lifespan of the saw chain will decrease as the saw chain will become blunt more quickly. You can recognize insufficient oil by the smoke development or discoloration of the guide bar. Make sure that there is always oil flowing onto the chain.

The tool is equipped with an automatic oil system. The oil flows to the guide bar as soon as the motor starts operating.

OPERATION

CAUTION! Switch off the tool and remove the batteries before carrying out any maintenance work.

Do not add used oil. Used oil can cause skin cancer with extended and repeated skin contact, and is damaging to the environment! Used oil does not have the necessary lubricating characteristics and is unsuitable for chain lubrication.

Avoid oil spillages. Always wipe up spilled oil.

- Unscrew the oil tank cover(13). Before opening, clean the tank cover and filling nozzle if necessary.
- Carefully add the chain lubricating oil until it reaches the top mark on the oil level indicator(14). Oil tank capacity: max. 220 ml.
- Screw the oil tank cap on tightly by hand.

WARNING!

- Risk of fire! Always turn off the device and let the engine cool down before filling with chain oil.
- Check the oil level indicator regularly and top up with oil once the "minimum mark" is reached.
- Use bio chain oil containing additives to reduce friction and wear. Alternatively, use chain lubricating oil with a low proportion of adhesion additives.
- Empty the oil tank if it will not be used for a prolonged period of time (6–8 weeks).

5. Installing and removing battery pack(Fig.2)

- To install: Slide Battery Pack into battery compartment on top of Chainsaw until it clicks into place. The chain saw requires two battery packs to start.
- To remove: Press the Battery Pack Release Button and pull Battery Pack out of battery compartment.

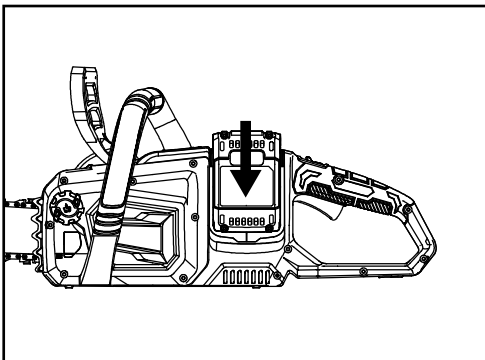


Fig.2

Workpiece and Work area Set up

1. Designate a work area that is clean and well lit. The work area must not allow access to children or pets to prevent distraction and injury.
2. There must not be objects, such as utility lines, nearby that will present a hazard while working.
3. A first-time user should, as a minimum practice, cut logs on a saw-horse or cradle before cutting down trees.

Before operation

WARNING! Risk of injury! Always wear protective gloves while working with the saw chain and use only original parts.

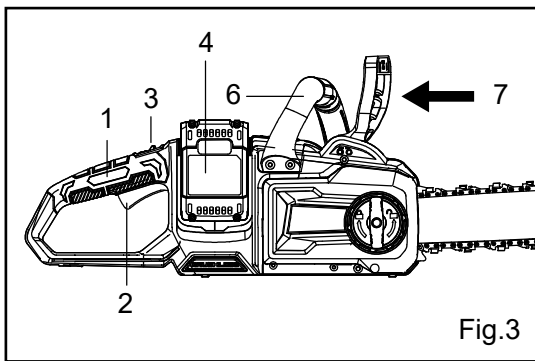
You need to do the following before using the tool for the first time:

OPERATION

- Tension the saw chain
- Pour in chain oil
- Charge and insert both batteries
- Check the chain brake
- Check the oil automation

Switching on and off

1. If necessary, insert the batteries (4) into the device.
 2. Release the chain brake by pushing the chain brake lever (7) against the front handle (6).
 3. Hold the chainsaw firmly with both hands, with your right hand on the rear handle (1) and your left hand on the front handle (6). Your thumb and fingers must tightly clasp the handles.
 4. Before starting, make sure that the chainsaw is not touching any objects.
 5. To activate the device, first press the on/off button (5.3).
- NOTICE! The device is in standby mode for approx. 5 minutes and must then be reactivated.
6. To switch on, press the switch lock (3) with your right thumb and then press the on/off switch (2). The chainsaw runs at maximum speed. Release the switch lock (3) again.
 7. Release the on/off switch (2) to switch off the chainsaw. Continuous switching is not possible.
 8. To deactivate the device, press the on/off button (5.3).



Overload indication

In case of overload, the red and yellow lights of the charge level indicator flash.

Check the charge status of the battery in the tool

The charge level indicator lights up during operation. The charge level of the battery is indicated by illumination of the corresponding lights on the charge level indicator.

Red, orange and green: Batteries charged

Red and orange: Batteries partially charged

Red: Batteries need to be charged

Charge the batteries when only the red LED on the charge level indicator on the tool is illuminated.

OPERATION

Changing the chain speed

Press the button for chain speed button (5.4) lets you switch between chain speeds 15 and 25 m/s.

The chain speed indicator (5.2) shows you the chain speed at which the tool is currently operating by illuminating levels 1 or 2.

Level 1: 15 m/s

Level 2: 25 m/s

Changing the saw chain and blade bar

CAUTION! Cutting injuries! Wear cut-resistant gloves when working with the saw chain or with the guide bar.

Prior to changing the saw chain, the groove of the guide rail must be cleaned of dirt because dirt deposits can cause the saw chain to break out of the rail. The deposits can also absorb the chain oil. So the consequence would be that the chain oil would not, or only a small part of it would, reach the underside of the rail and the lubrication would be reduced.

1. Replace the guide bar(9) and the saw chain(8).
2. Fit the guide bar(9) and saw chain (8) as described under Installing the saw chain and guide bar.

BASIC WORKING TECHNIQUE

Risk of injury!

This section examines the basic working technique for using the device. The information provided here does not replace the many years of training and experience of a specialist. Avoid any work that you are not adequately qualified for! Careless use of the device can lead to serious injuries and even death!

SAWING TECHNIQUE: PULL SAWING(FIG.4)

With this technique, sawing takes place with the underside of the guide bar from top to bottom.

The saw chain pulls the device forwards and away from the user. With this action, the front edge of the device forms a support, which absorbs the forces that arise on the tree trunk during sawing. With pull sawing, the user is able to better avoid kickbacks. This sawing technique should therefore be used if possible.

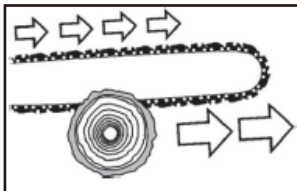


Fig.4

PUSH SAWING(FIG.5)

With this technology, sawing takes place with the top side of the guide bar from bottom to top. The saw chain pushes the device backwards, towards the user.

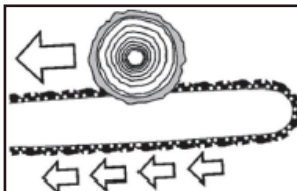


Fig.5

WARNING!

If the guide bar tilts, the device may be jerked towards the user with great force. If the user does not balance the backward force of the saw chain with their body strength, there is a risk that only the tip of the guide bar will remain in contact with the wood and kickback will occur.

Risk of death or serious injuries!

OPERATION

FELLING A TREE(Fig.6)

Risk of injury!

Felling and branch removal work may only be performed by trained personnel! There is a risk of life threatening injuries!

Before beginning the felling work, make sure that:

No bystanders or animals are in the felling area (A).

A clear evacuation route, free of obstacles, is available to all participants. Withdrawal (B) takes place at an oblique angle to the felling direction.

The area around the trunk is clear of obstacles (risk of tripping!).

The nearest workplace is at least $2\frac{1}{2}$ trunk lengths away. Before felling, check the felling direction of the tree and make sure that no obstacles, persons or animals are within a distance of $2\frac{1}{2}$ tree lengths.

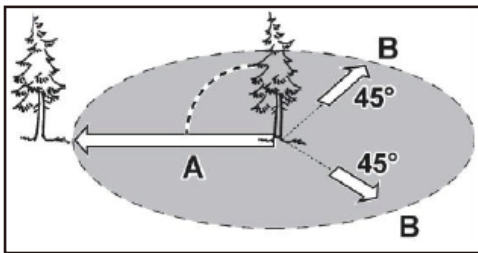


Fig.6

Tree felling takes place in two steps(Fig.7):

Saw a felling sink in the trunk of around one third of its diameter, on the side of the felling direction (1).

On the opposite side (2) make the felling cut, which must be slightly higher than the felling sink (approx.3-5 cm).

Risk of injury!

Never saw fully through the trunk. The area (C) serves as a “hinge” and ensures the correct felling direction.

During felling, only stand to the side of the tree you intend to fell! There is a risk of life-threatening injuries!

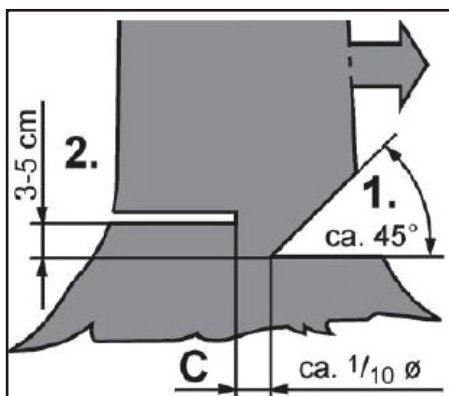


Fig.7

TRUNKS LYING FLAT ON THE GROUND(Fig.8)

Cut around halfway through the trunk, then turn it over and saw through the other side.

Damage to the device! Ensure that the guide bar does not come into contact with the ground when sawing through a tree trunk!

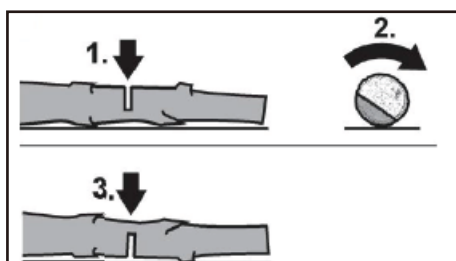


Fig.8

OPERATION

FALLEN TRUNKS(FIG.9)

We recommend supporting trunks on a sawhorse when sawing through them. If this is not possible, the trunk should be lifted with the aid of supporting boughs or with support blocks and be supported from top to bottom. Then make the subsequent cut of the trunk diameter from bottom to top, and then saw through from the top.

Risk of injury!

Do not saw trunks that are strained! Splitting wood or a tilted guide bar can result in serious injuries!

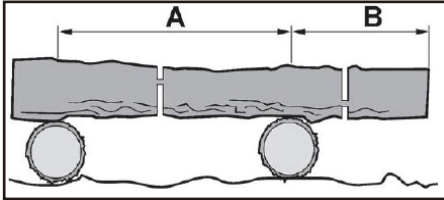


Fig.9

REMOVING BRANCHES(FIG.10)

Always work on the side opposite the respective branch. Start at the bottom of the branch and work up.

Saw into the branch 10–15 cm from the branch base.

Saw through the branch slightly further out from top to bottom(2).

Perform a cut tightly against the trunk (3). Make the cut support limbs once the branches have been sawn along their length.

Risk of injury!

With branches that are supported or strained, the saw chain can wedge in the wood!

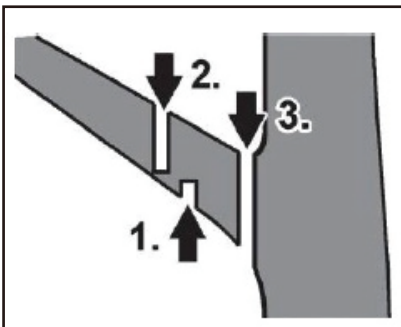


Fig.10

CLEANING AND MAINTENANCE

WARNING! Always remove the battery from the device before all work on the device. Danger of injury due to the sharp cutting teeth! Wear safety gloves.

Only perform the maintenance work described here yourself. All other work - in particular motor maintenance and repairs - must be performed by a qualified specialist.

Unprofessional work can lead to device damage and therefore also to injuries.

CLEANING AND MAINTENANCE OVERVIEW

After every use, clean the device.

Regularly, depending on the conditions of use:

Re-tighten the saw chain.

Clean guide bar oil guide groove.

Sharpen the saw chain.

Check the saw chain oil level, top up if necessary.

CLEANING AND MAINTENANCE

WARNING! Do not use water or liquid cleaning products.

CAUTION! Clean the device after every use. Use a damp cloth and a soft brush to clean the device. the guide rail, saw chain, chain wheel and chain cover with a soft brush.
Keep the ventilation slots clean and free of dust.

RE-TIGHTENING THE SAW CHAIN

The saw chain must not sag, although it should be possible to pull it 1-2 mm away from the guide bar in the center of the guide bar. Turn the hand wheel counterclockwise.

Turn the chain tensioning wheel, so that the chain is tensioned.

Turn the saw chain by hand, to check it runs freely. It must glide freely in the rail.

Tighten the hand wheel for fastening the rail and chain cover.

NOTE: The tension of a new chain must be checked after a few minutes in operation, and adjusted if necessary. Apply the chain brake.

CLEANING THE GUIDE BAR OIL GUIDE GROOVE

Dismantle the guide bar.

Clean the oil guide groove of dirt with a suitable tool.

Use a plastic spatula, do not use steel tools!

SHARPENING THE SAW CHAIN

Special tools are required to sharpen the saw chain; these ensure that the chain cutting edges are sharpened at the correct angle and to the correct depth.

We recommend having the saw chain sharpened by a specialist.

STORAGE

Store the machine, operating instructions and where necessary the accessories in the original packaging.

In this way you will always have all the information and parts ready to hand.

Pack the device well or use the original packaging in order to avoid transit damage.

Store the machine in dry and well ventilated surroundings and with the oil tank empty.

Store the battery and the device separately from each other.

Charge the battery before storing it for the winter.

In case of longer breaks between use, always drain the chain lubricating oil from the device.

Place the protective sheath on the cutting unit.

Keep the device, and its plastic components in oil, penetrating oil etc. They contain chemical substances that may damage or destroy the plastic parts of the device.

Fertilizers and other garden chemicals contain metal parts.

Do not store the device close to the substances.

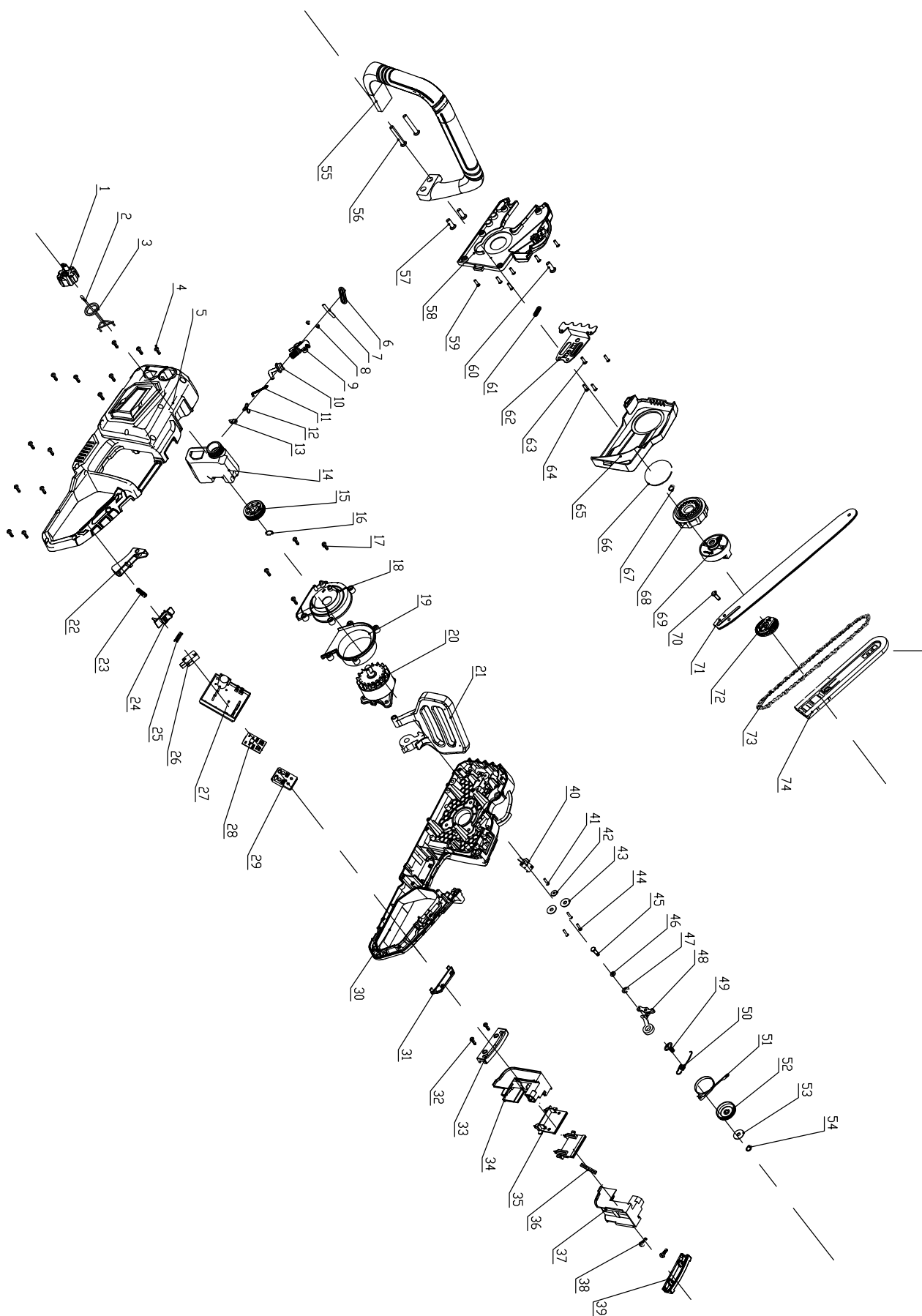
DISPOSAL AND RECYCLING

The equipment is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled. The equipment and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste.

PARTS LIST

No.	Description	Qty.	No.	Description	Qty.
1	Oil Tank Cover	1	38	Self-Tapping Screw	2
2	Oil Tank Cover Seal	1	39	Right Connecting Plate	1
3	Anti-Lost Hook	1	40	Micro Switch	1
4	Self-Tapping Screw	14	41	Flange Self-Tapping Screw	1
5	Left Housing	1	42	Flat Washer	1
6	Oil Outlet Nozzle	1	43	Flat Washer	2
7	Oil Outlet Pipe	1	44	Machine Screw 5X14	3
8	Flange Self-Tapping Screw	2	45	Locate Pin	1
9	Oil Pump Assembly	1	46	Flat Washer	1
10	Oil Inlet Pipe	1	47	E-Type Retaining Ring	1
11	Oil Pipe Spring	1	48	Tie Rod Assembly	1
12	Oil Pipe Lock Spring	1	49	Flange Self-Tapping Screw	1
13	Valve	1	50	Tension Spring	1
14	Oil Tank	1	51	Brake Band	1
15	Worm	1	52	Brake Ring	1
16	Shaft Retaining Ring $\Phi 12$	1	53	Sprocket Washer	1
17	Self-Tapping Screw	4	54	Shaft Retaining Ring	1
18	Air Guide Cover	1	55	Front Handle	1
19	Air Guide Cover	1	56	Self-Tapping Screw	2
20	Motor Assembly	1	57	Self-Tapping Screw 5*16	2
21	Protective Plate	1	58	Right Case Cover	1
22	Switch Trigger	1	59	Self-Tapping Screw	6
23	Button Spring	1	60	Self-Tapping Screw 5*16	1
24	Anti-Self-Locking Push Button	1	61	Ring Seal	1
25	Push Rod Spring	1	62	Chain Catch	1
26	Micro Switch	1	63	Countersunk Self-Tapping Screw	2
27	Controller	1	64	Self-Tapping Screw	2
28	Power Display Panel	1	65	Cover	1
29	Display Panel Cover	1	66	Wire Spring	1
30	Right Case	1	67	Shaft Retaining Ring	1
31	Decorative Cover	1	68	Saw Chain Tensioning Knob	1
32	Self-Tapping Screw	2	69	Sprocket Cover Lock Screw	1
33	Left Connecting Plate	1	70	Guide Screw	1
34	Battery Compartment Upper Cover	1	71	Guide Bar	1
35	Pin Socket	2	72	Spinning Wheel Assembly	1
36	Lead	1	73	Chain	1
37	Battery Compartment Lower Cover	1	74	Guide Bar Sheath	1

SCHEMATIC DRAWING



REPLACEMENT PARTS

- For replacement parts and technical questions, please call Customer Service at 1-866-915-8626.
- Not all product components are available for replacement. The illustrations provided are a convenient reference to the location and position of parts in the assembly sequence.
- When ordering parts, the following information will be required: item description, item model number, item serial number/item lot date code, and the replacement part reference number.
- The distributor reserves the rights to make design changes and improvements to product lines and manuals without notice.

LIMITED WARRANTY

Northern Tool and Equipment Company, Inc. ("We" or "Us") warrants to the original purchaser only ("You" or "Your") that the KLUTCH product purchased will be free from material defects in both materials and workmanship, normal wear and tear excepted, for a period of two years from date of purchase. The foregoing warranty is valid only if the installation and use of the product is strictly in accordance with product instructions. There are no other warranties, express or implied, including the warranty of merchantability or fitness for a particular purpose. If the product does not comply with this limited warranty.

Your sole and exclusive remedy is that We will, at our sole option and within a commercially reasonable time, either replace the product or product component without charge to You or refund the purchase price (less shipping). This limited warranty is not transferable.

Limitations on the Warranty

This limited warranty does not cover: (a) normal wear and tear; (b) damage through abuse, neglect, misuse, or as a result of any accident or in any other manner; (C) damage from misapplication, overloading, or improper installation; (d) improper maintenance and repair; and (e) product alteration in any manner by anyone other than Us, with the sole exception of alterations made pursuant to product instructions and in a workmanlike manner.

Obligations of Purchaser

You must retain Your product purchase receipt to verify date of purchase and that You are the original purchaser. To make a warranty claim, contact Us at 1-866-915-8626, identify the product by make and model number, and follow the claim instructions that will be provided. The product and the purchase receipt must be provided to Us in order to process Your warranty claim. Any returned product that is replaced or refunded by Us becomes our property.

You will be responsible for return shipping costs or costs related to Your return visit to a retail store.

Remedy Limits

Product replacement or a refund of the purchase price is Your sole remedy under this limited warranty or any other warranty related to the product.

We shall not be liable for: service or labor charges or damage to Your property incurred in removing or replacing the product; any damages, including, without limitation, damages to tangible personal property or personal injury, related to Your improper use, installation, or maintenance of the product or product component; or any indirect, incidental or consequential damages of any kind for any reason.

Assumption of Risk

You acknowledge and agree that any use of the product for any purpose other than the specified use(s) stated in the product instructions is at Your own risk.

Governing Law

This limited warranty gives You specific legal rights, and You also may have other rights which vary from state to state. Some states do not allow limitations or exclusions on implied warranties or incidental or consequential damages, so the above limitations may not apply to You. This limited warranty is governed by the laws of the State of Minnesota, without regard to rules pertaining to conflicts of law. The state courts located in Dakota County, Minnesota shall have exclusive jurisdiction for any disputes relating to this warranty.

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