

# TOLSEN MP20<sup>V</sup>

**87376**

## **LI-ION CORDLESS BRUSH CUTTER AND GRASS TRIMMER**

**INSTRUCTION MANUAL**

**20V LITHIUM-ION**

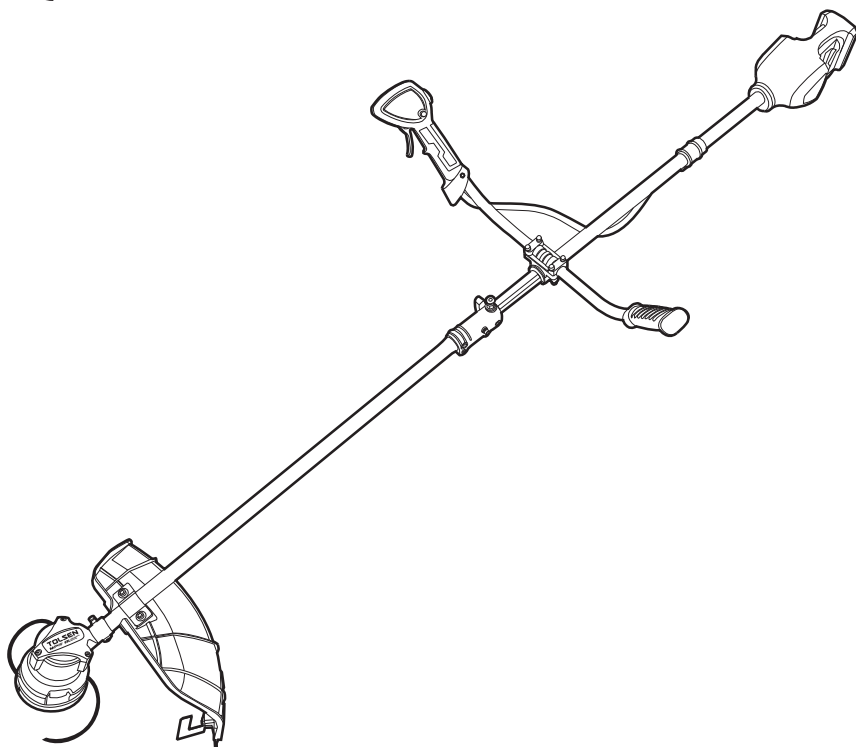


**RoHS**

**BL**

**BRUSHLESS  
MOTOR**

**INDUSTRIAL**



**SAVE THIS MANUAL !**

You will need this manual for safety instructions, operating procedures and warranty.  
Put it and the original sales receipt in a safe dry place for future reference.

## IMPORTANT SAFETY INFORMATION

### 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.

**WARNING:** This appliance is not intended for use by persons (including children) with reduced, physical or mental capabilities or lack of experience or knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children must be supervised to ensure that they do not play with the appliance.

Save all warnings and instructions for future reference

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

### Work area safety

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### Electrical safety

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.  
There is an increased risk of electric shock if your body is earthed or grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool.  
Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) or ground fault circuit interrupter (GFCI) protected supply. Use of an RCD or GFCI reduces the risk of electric shock.
7. Power tools can produce electromagnetic fields [EMF] that are not harmful to the user. However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

## Personal safety

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1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
2. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
4. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations
6. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
8. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

## Power tool use and care

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1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
2. Do not use the power tool if the switch could not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. Disconnect the plug from the power source and/or 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.
4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
5. Maintain power tools. 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.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
8. Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

## Battery Tool Use and Care

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1. 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.
2. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
3. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
4. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
5. Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
7. Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

## Service

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1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
2. Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. Follow instruction for lubricating and changing accessories.

## Brush Cutter Safety Warnings

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1. Keep guards in place and in good working order.
2. Keep hands and feet away from cutting area.
3. Do not use heavier lines than recommended in this manual.
4. Do not use line materials of other types – for example, metal wire, rope, and the like.

## Battery Safety

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### WARNING

This battery can only be used in the machines included in the TOLSEN MP20V lithium-ion power platform system. This battery can only be used cooperatively with the designated battery charger.

Li-Ion batteries, if incorrectly used, stored or charged will cause a fire, burn and explosion hazard.

Failure to follow these instructions may cause overheating or fire.

1. Keep the battery out of reach of children.
2. The battery should be charged at ambient temperatures between 5 and 40°C (ideally around 20°C). After charging, allow 15 minutes for the battery to cool before use.
3. The Battery Charger monitors battery temperature and voltage while charging. **DO NOT** leave batteries on charge for extended periods and **NEVER** store batteries on charge. Ensure that the charger is disconnected from the mains supply after use.
4. When not in use batteries should be stored at room temperature. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 40°C (ideally around 20°C).
5. Ensure that battery contacts cannot accidentally short in storage. Keep batteries clean; foreign objects or dirt may cause a short. Keep away from other metal objects, for example, paperclips, coins, keys, nails and screws.
6. **DO NOT** store lithium-ion battery packs in a discharged state over a long period as this can damage the lithium-ion cells. For long-term storage, store batteries in a high charge state disconnected from the power tool.
7. Batteries can become faulty over time, individual cells in the battery can fail and the battery could short. The charger will not charge faulty batteries. Use another battery, if possible, to check correct functionality of the charger and purchase a replacement battery if a faulty battery is indicated.
8. **DO NOT** open, disassemble, crush, heat or incinerate. Do not dispose of in fire or similar.

## Battery Charger Safety

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### WARNING

This charger can only be used to charge the batteries which has TOLSEN MP20V symbol. If it is used to charge other kinds of batteries, there is a risk of explosion. **DO NOT** attempt to recharge non-rechargeable batteries.

1. This is class 2 power supply. It is suitable for indoor use only.
2. Before use, the input and output technical data must be checked to secure correct use.
3. Do not use the Battery Charger in the circumstances that the output polarity does not match the load polarity.
4. Do not attempt to use the charger with any batteries other than those supplied. Keep your battery charger clean; foreign objects or dirt may cause a short or block air vents. Failure to follow these instructions may cause overheating or fire.
5. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

## Save these instructions

















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### WARNING

**DO NOT** let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. **MISUSE** or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

## Note: Symbolology

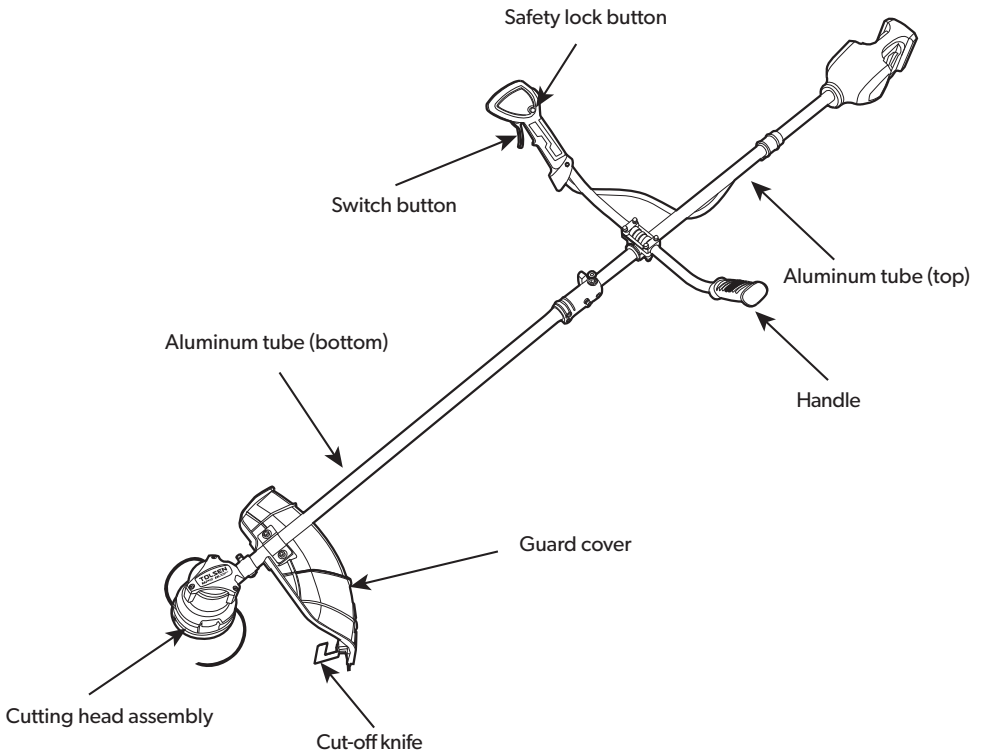
	CE conformity
	Read the instruction manual before using
	Wear hearing protection while operating the tool Wear hand protection
	Always use breathing apparatus when machining materials which generate dust. Wear ear protection.
	Operating environmental temperature
	Do not incinerate battery pack
	Do not expose to water
	Keep all bystanders at least 50 feet away.
	Thrown objects can ricochet and result in personal injury or property damage. Wear protective clothing and boots.
	Thrown objects can ricochet and result in personal injury or property damage. Wear protective clothing and boots.
	Do not expose the product to rain or moist conditions.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.
	Batteries and rechargeable batteries are not household waste! As a consumer, you are required by law to dispose of all batteries and accumulators, whether or not they contain harmful substances *, at a collection point in your municipality / neighborhood or in commerce so that they can be disposed of in an environmentally sound manner.
	Battery pack is recyclable and should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice
	Safety alert
	If the current of the charger is higher than "x"A, the time-lag fuse will interrupt the power supply

SPECIFICATIONS

Rated voltage	40VDC(2x20V)
Output power	450W
No-load speed	$n_0$ : 4000 / 5000/min <sup>-1</sup>
Cutting capacity for grass(diameter)	16"(400mm)
Cutting capacity for brush(diameter)	10"(255mm)
Trimmer line	Ø2.0mm
Net weight	5.2kg(11.4lbs)



## FUNCTIONS





## INSTALLING SHIELD & BLADE

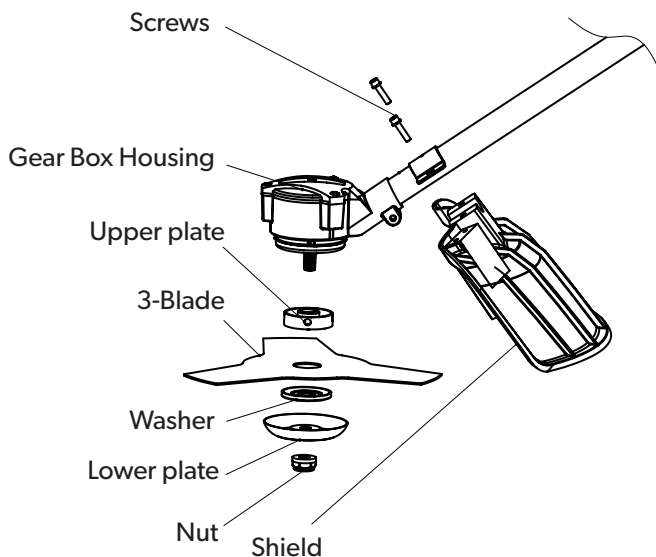
Fit the metal shield to the gear box housing. Using three screws and secure to box housing. Fit the lining to the gear box housing. Secure metal blade between upper and lower plate with nut. Make sure that cotter pin is installed.

**WARNING****CAUTION**

METAL SHIELD ONLY TO BE USED WITH STEEL CUTTING BLADE

**WARNING****CAUTION****EXCESSIVE VIBRATION. STOP ENGINE IMMEDIATELY**

Excessive vibration of blade means that it is not properly installed-stop engine immediately and check blade. Blade not properly installed will cause injury.



## RULES FOR SAFE OPERATION

### WARNING



### DANGER

All models trimmers and brush cutters can throw small stone, metal or small objects as well as the material being cut. Read these "Rules for Safe Operation" with care. Follow the instructions in your operator's manual.

Read the operator's manual carefully. Be thoroughly familiar with the controls and proper use of the unit. Know how to stop the unit and shut off the engine. Know how to unhook a harnessed unit quickly. Be sure the operator wears the foot, leg, eye, face and hearing or thrown objects. Keep the area clear of bystanders, children and pets. Never allow children to operate or play with the unit. Do not allow anyone to enter the operating DANGER ZONE with you. The danger zone is an area 15 meters in radius (about 16 paces) or 50 feet. Insist that persons in the RISK ZONE beyond the danger zone wear eye protection from thrown objects. If the unit must be used where there are unprotected people, operate at a low throttle speed to reduce the risk of thrown objects. Move the stop switch to "o" position when the engine idles, insure it reliable before cutting. Only may continue to operate the unit when stop switch is in good condition. Routines for checking that the cutting attachment stops running when the engine idles.

### WARNING



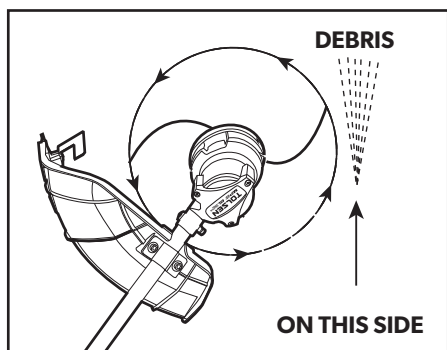
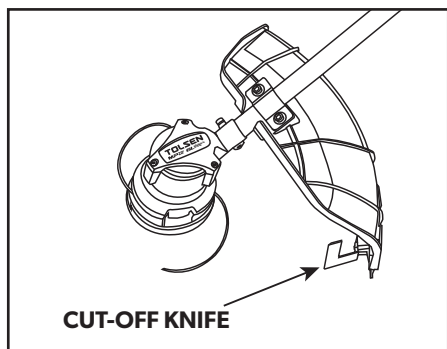
### DANGER

In addition to head, eye, face and ear protectors shoes to protect your feet improve your footing on slippery surfaces. Do not wear ties, jewelry, or loose, dangling clothing which could be caught in the unit. Do not wear open-toed footwear, or go bare-foot or bare legged. In certain situations you must wear total face and head protection.



NO PERSON EXCEPT OPERATOR ALLOWED 15 METERS RADIUS DANGER ZONE. EYE, EAR, FACE, FOOT, LEG AND BODY PROTECTION MUST BE WORN BY OPERATOR. PERSONS IN ZONE OR RISK BEYOND DANGER ZONE SHOULD WEAR EYE PROTECTION AGAINST THROWN OBJECTS. RISK DIMINISHES WITH DISTANCE FROM DANGER ZONE.

### CUTTING WITH A NYLON HEAD



#### WARNING



#### DANGER

The proper debris shield must be in place on the unit when nylon cutting line is used. The cutting line can flap around if too much line is exposed. Always use the plastic debris shield with cut-off knife when using nylon cutting heads.

For nearly all cutting, it is good to tilt the line head so that contact is made on the part of the line "circle" where the line is moving AWAY from you and the debris shield. (See appropriate) This results in the debris being thrown AWAY from you.

#### WARNING



#### DANGER

Tilting the head to the wrong side will shoot the debris TOWARDS you. If the line head is held flat to the ground so that cutting occurs on the whole line circle, debris will be THROWN at you, drag will slow the engine down, and you will use up a lot of line.

#### WARNING



#### DANGER

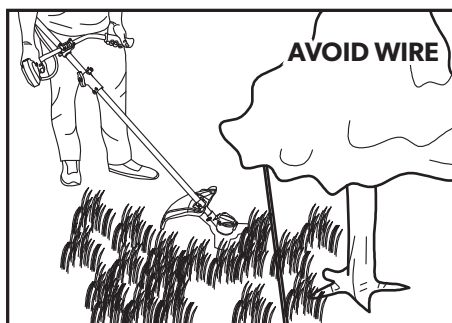
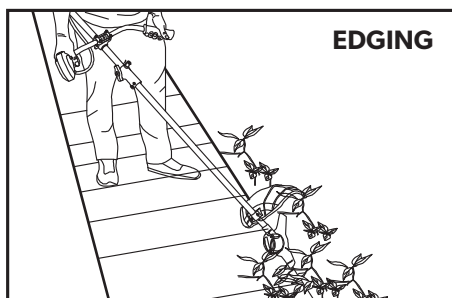
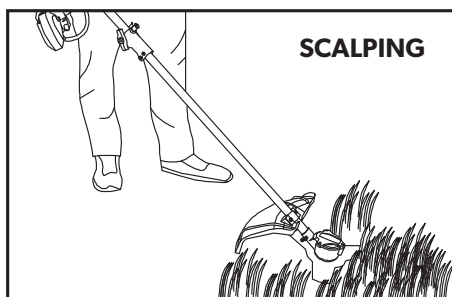
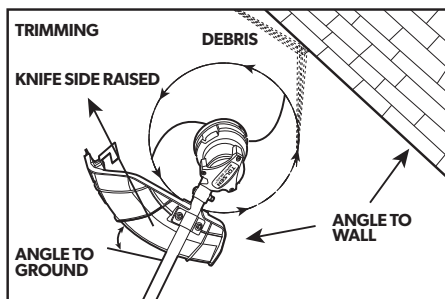
Use only quality nylon monofilament line of the diameter 2.5mm, Never use wire or "wire-reinforced line in place of nylon trimmer line. Load your nylon line cutting head only with nylon trimmer line of the proper diameter.

#### WARNING



#### DANGER

Use extreme caution when operating over bare spots and gravel, because the line can throw small rock particles at high speeds. Debris shields on the unit cannot stop objects which bounce or ricochet off hard surfaces.



**TRIMMING:** This is feeding the trimmer carefully into the material you wish to cut. Tilt the head slowly to direct debris away from you. If cutting up to a barrier such as fence, wall or tree, approach from an angle where any debris ricocheting off the barrier will fly away from you. Move the line head slowly until the grass is cut right up the barrier, but do not jam (overfeed) the line into the barrier. If trimming up to a wire mesh or chain linked fence be careful to feed only up to wire. If you go too far the line will snap off around the wire. Trimming can be done to cut through weed stems one at a time. Place the trimmer line head near the bottom of the weed never high up which could cause the weed to chatter and catch the line. Rather than cut the weed right through, just use the very end of the line to wear through the stem slowly.

**SCALPING AND EDGING:** Both of these are done with the line head tilted at a steep angle. Scalping is removing top growth leaving the roots intact. Edging is trimming the grass back where it has spread over a sidewalk or driveway. During both edging and scalping, hold the unit at a steep angle and in a position where the debris, and any dislodging dirt and stones, will not come back towards you even if it ricochets off the hard surface. Although the picture shows how to edge and scalp every operator must find for himself the angles which suits his body size and cutting situation.

**WARNING****DANGER**

Do not trim in any area where there are strands of fencing wire. Wear protective safety protecting. Do not cut where you cannot see what the cutting device is cutting.

## CUTTING WITH A BLADE

### CUTTING WITH A BLADE

3-tooth metal blade and 8-tooth metal blade are provided with the machine Use of saw blade with this machine is prohibited.

**WARNING****DANGER**

DO NOT USE A BRUSH CUTTER FOR CUTTING TREES.

**WARNING****DANGER**

Use the shoulder harness at all times adjust both harness and harness clam on the unit so that the unit hangs a few inches above ground level The cutting head and the metal debris shield should be level in all directions.  
Harness the unit on the right side of your body.

**WARNING****DANGER**

Do not cut with dull, cracked or damaged metal blade. Before cutting growth, inspect for obstructions such as boulders, metal stakes or strands of wire from broken fences. If an obstruction can not be removed, mark its location so that you can avoid it with the blade. Rocks and metal will dull or damage a blade. Wire can catch on the blade head and flap around or be thrown into the air.

**SCYTHING WEEDS** This is cutting by swinging the blade in a level arc. It can quickly clear areas of field grass and weeds. Scything should not be used to cut large, tough weeds or woody growths.

**NOTE:** Do not use a brush blade to cut trees which exceed a diameter of 1/2 to 3/4 inches.

Scything can be done in both directions, or just in one way which results in tie debris being thrown away from you. That is using the side o the blade that it is rotating away from you. Tilt down the blade slightly on this same side. you will be hit by some debris if you seythe in both drecions.

Cut only with the side of the blade that the debris is moving away from you.

If kickback occurs, the blade may be dull, or the material so thick and hard that you should use other tool instead of this machine.

Do not force the blade to cut. Do not change the angle of cut after into the wood. Avoid using any pressure or leverage which could cause the blade to bind or crack

## MAINTENANCE

**CAUTION:**

Do not let brake fluids, gasoline, petroleum-based materials touch the plastic parts. Chemicals can cause damage to the plastic, and make the plastic unserviceable.

**CAUTION:**

Do not use strong solvents or detergents on the plastic housing or components.

**WARNING**

Remove the battery pack from the machine before maintenance.

**CLEAN THE MACHINE****WARNING**

Keep the machine and the motor free of leaves, branches or excessive oil to prevent fire risks.

- Use a moist cloth with a mild detergent to clean the machine.
- Clean all moisture with a soft dry cloth.
- Use a small brush to clean the air vents.

**LUBRICATE THE BLADE**

To increase the efficiency and life of the blades, lubricate them carefully after each work session:

- Put the machine on a flat and smooth surface.
- Use a soft cloth to clean the blades and a brush to remove more dirt.
- Use a light layer of oil to lubricate the blades along the top edge of the blade.

**NOTE:**

We recommend to use the non-pollutant type oil.

**STORE THE MACHINE****NOTE:**

Clean the machine before storage.

- a. Remove the battery pack.
- b. Let the motor cool.
- c. Check that there are no loose or damaged components. If it is necessary, replace the damaged components, tighten screws and bolts, or speak to a person of an approved service center.
- d. Store the machine in a cool and dry location.

## TROUBLESHOOTING

problem	possible causes	Likely Solutions
Tool will not start.	<ol style="list-style-type: none"> <li>1. Battery Pack not properly connected.</li> <li>2. Battery Pack not properly charged.</li> <li>3. Battery Pack worn out.</li> <li>4. Internal damage or wear. (Carbon brushes or Trigger, for example.)</li> <li>5. Contact chips of switch or battery pack deformed.</li> <li>6. Battery is not suitable for TOLSEN MP20V lithium-ion power platform system</li> <li>7. Overload operation.</li> <li>8. PCB damages.</li> <li>9. Motor damages.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove Battery Pack, make sure there are no obstructions, clean battery contacts on tool, reinsert the Battery Pack according to its shape (it should only fit one way), and press firmly until the Battery Pack locks in place.</li> <li>2. Make sure Charger is connected and operating properly. Give enough time for Battery Pack to recharge properly.</li> <li>3. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.</li> <li>4. Have technician service tool.</li> <li>5. Replace switch or Battery Pack</li> <li>6. Replace the battery of TOLSEN MP20V</li> <li>7. Stop to use and restart the machine after cooling.</li> <li>8. Replace damaged PCB.</li> <li>9. Replace damaged motor.</li> </ol>
Tool operates slowly.	<ol style="list-style-type: none"> <li>1. Battery Pack wearing out.</li> <li>2. Low battery</li> <li>3. Blocked motor housing vents.</li> </ol>	<ol style="list-style-type: none"> <li>1. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.</li> <li>2. Recharge or replace a fully charged battery</li> <li>3. Clean the Blocked motor housing vents</li> </ol>
Smoke coming out of the tool.	<ol style="list-style-type: none"> <li>1. The tool damages.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stop to use the tools and remove the battery pack. Please contact service center.</li> </ol>
Motor can work, but the blade doesn't work	<ol style="list-style-type: none"> <li>1. The tools damages.</li> <li>2. The blade is stuck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Don't use the tools and contact service center.</li> <li>2. Remove the battery pack and clean the blade.</li> </ol>
Excessive noise / shake or rattling.	<ol style="list-style-type: none"> <li>1. The spare parts are loose.</li> <li>2. The spare parts damages.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stop to use the tools and remove the battery pack. Check the problems and tighten loose spare parts.</li> <li>2. If the tools still cannot use, please contact service center.</li> </ol>
Overheating.	Forcing tool to work too fast.	Allow tool to work at its own rate.

# CE DECLARATION OF CONFORMITY

WE  
SUZHOU TOLSEN TOOLS CO.,LTD.  
198 HUASHAN ROAD, ZHANGJIAGANG,  
JIANGSU, CHINA

Declare that the product  
87376  
LI-ION CORDLESS BRUSH CUTTER  
AND GRASS TRIMMER

Complies with the essential health and safety requirements of the following Directices:  
council directive 2006/42/EC

Standards and technical specifications referred to:  
EN IEC 55014-1:2021  
EN IEC 55014-2:2021

Authorised Signatory and technical file holder

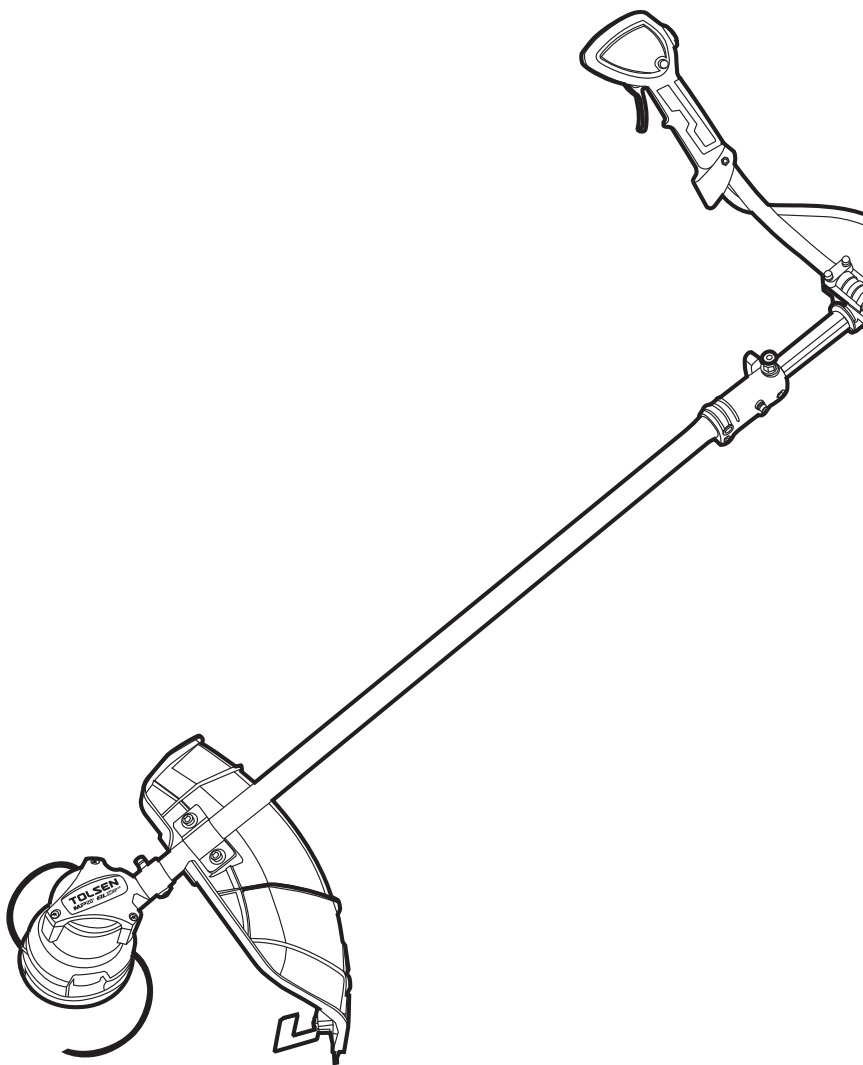
Signed for and on behalf of:  
SUZHOU TOLSEN TOOLS CO.,LTD.  
198 HUASHAN ROAD, ZHANGJIAGANG,  
JIANGSU, CHINA  
WANG QING

Group Quality Director

on:07/02/2022







**SUZHOU TOLSEN  
TOOLS CO.,LTD.**

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SCAN TO VISIT  
PRODUCT LINK