

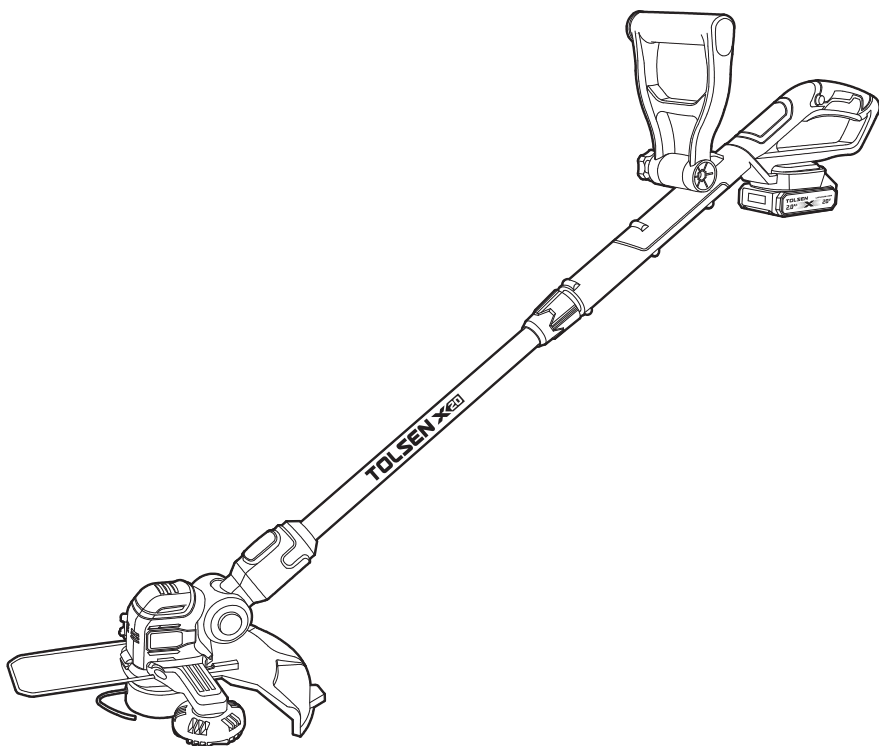
TOLSEN X20

97148

LI-ION CORDLESS STRING TRIMMER

INSTRUCTION MANUAL

20V LITHIUM-ION



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

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

1. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
2. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. Disconnect the plug from the power source and/or 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

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

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.

Coldless glass trimmer safety warnings

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



WARNING

This battery can only be used in the machines included in the TOLSEN X20V 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



WARNING

This charger can only be used to charge the batteries which has TOLSEN X20V 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



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.

Before Use

Removing a battery

Remove the Battery from the tool by pressing the lock button, then slide the Battery out of the Battery Slot.

WARNING:

DO NOT try to remove the Battery without pressing the lock button. The tool or Battery could be damaged.

Fitting a battery

1. Fit a battery by sliding it on to the Battery Slot of the tool until it clicks and locks into position

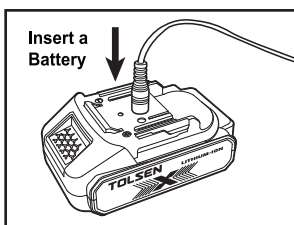
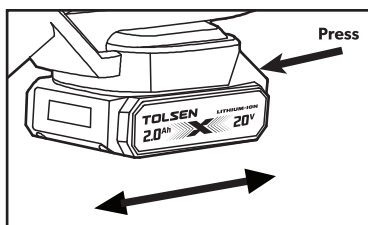
Note: Make sure the Battery and tool are lined up correctly. If the Battery does not slide into the tool easily, do not force it. Instead, slide the Battery out of the tool again, check the top of Battery and the tool battery slot are clean and undamaged and that the contacts are not bent

Setting up the battery charger

1. If there is battery fitted, remove any battery from battery charger first

2. Insert the Battery Charger mains plug into a suitable mains socket

Note: The Green LED on the Charger will always bright to indicate that the charger is ready to charge the battery.



WARNING: Use this charger ONLY to charge the supplied battery or additional purchased batteries that are specifically designed for this tool.

Charging the battery

WARNING: Failure to follow the correct procedure when charging batteries will result in permanent damage.

Note: Normal charging time is approximately 65 minutes for a recently discharged 2.0Ah capacity battery.

However, if the Battery has been left in a discharged state for some time, it may take additional time to charge.

1. Slide a fully or partially discharged Battery on to the Battery Charger .

2. Once charging commences, the Red LED will on.

3. When the Battery is fully charged, the Red LED will off and Green LED will on.

IMPORTANT: When a low charge level is indicated, the tool may stop operating while in use, which is dangerous when operating it. Always ensure the battery pack has a good charge level.

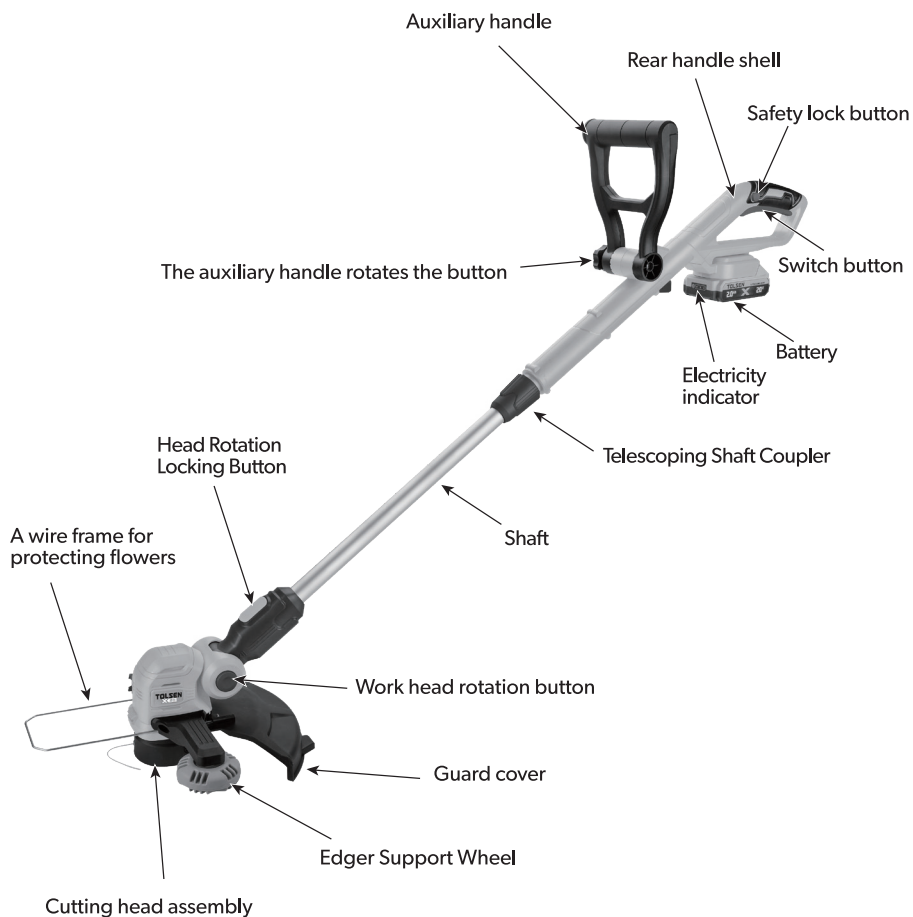
Note: Symbology

	Class II Double insulated for additional protection
	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.
	Danger - keep hands and feet away from blade.v
	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 suppl

SPECIFICATIONS

Rated Voltage	20VDC
Cutting Diameter	260 mm
Line Diameter	1.6 mm
No-Load Speed	n_0 : 9000min ⁻¹
Battery (96148 not include)	
Battery Voltage	20VDC
Battery capacity	2.0Ah
Charger (96148 not include)	
Input Voltage	110-120VAC 60Hz
Output Voltage	21.5VDC
Rated output current	1.5A
Charging Time	85 minutes fast charging(2.0Ah battery)
Protection class	

FUNCTIONS



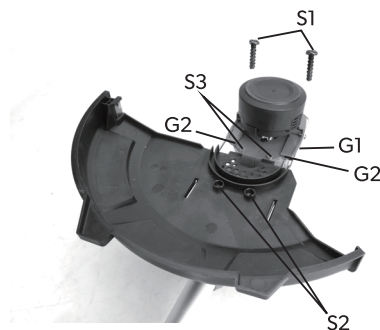
ASSEMBLY AND ADJUSTMENTS

WARNING

Always be sure that the product is switched off and the battery is disconnected before adjusting, adding accessories, or checking a function on the product.

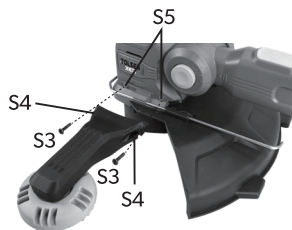
Installing Wire Guard And Safety Guard

1. Install the wire guard through the grooves (G1) on both sides of the motor head . Make sure the wire guard snugly fits into grooves.
2. Slide the safety guard through the grooves (G2) on the motor head as far as it can go. Align the screw holes (S2) on the safety guard with screw holes (S3) on the motor head.
3. Tighten two screws (S1) through screw holes (S2, S3) to secure the safety guard.



Installing Edger Support Wheel

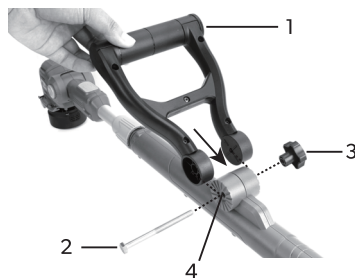
- Attach the edger support wheel on the motor head . Align screw holes S4 with S5.
- Tighten 2 screws through screw holes (S4, S5) to secure the edger support wheel in place.



Installing And Adjusting Auxiliary Handle

To Install the Auxiliary Handle

1. Attach the auxiliary handle (1) to the handle base (4) . Make sure the handle engages with the indented surfaces on both sides of the base.
2. Insert the bolt (2) completely through the handle and handle base.
3. Tighten the locking knob (3) to firmly secure the auxiliary handle in place.



To Adjust the Auxiliary Handle

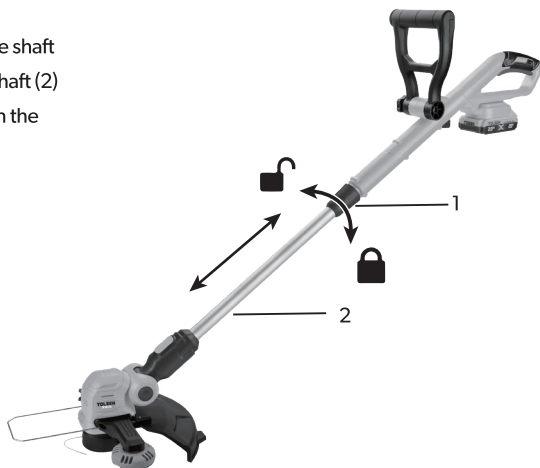
1. Loosen the locking knob (3).
2. Adjust the auxiliary handle up or down to your desired position.
3. Tighten the locking knob to secure the auxiliary handle.



Adjusting The Height

CAUTION: Adjust the height of the trimmer to obtain the working position before using it.

To Adjust the Height of the Trimmer, loosen the shaft coupler (1) by turning it clockwise, move the shaft (2) up or down to the desired height, then tighten the coupler by turning it counterclockwise.

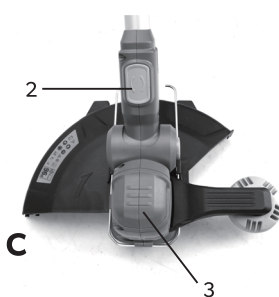
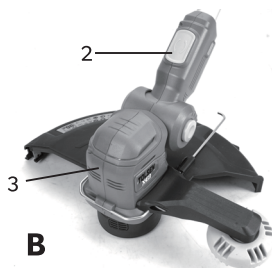
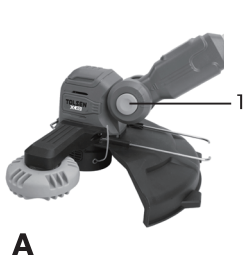


Adjusting The Motor Head

The motor head (3) can be tilted in four positions for user comfort and various applications (refer to A).

To tilt the motor head, press and hold the head tilting locking button (1), tilt the head to one of four optional positions, and then release the locking button.

The motor head(3) can also be rotated in three positions to switch between trimmer and edger functions (refer to B, C). To rotate the head, press and hold the head rotating locking button (2), then rotate the head to the desired position for your application. The middle position is for trimming (B), while the left and right positions are for edging (C).



OPERATION

Starting And Stopping The Trimmer

To Start the Trimmer, press the lock-off button and squeeze the trigger switch.

To Stop the Trimmer, release the trigger switch.

CAUTION: Always allow a few seconds for the cutting line spool to stop rotating after releasing the trigger switch. Do not invert the trimmer/edger or place your hands under the guard until the trimmer/edger spool has come to a complete stop.

Cutting Line And Feeding

This trimmer uses 1.6mm x 6m diameter nylon line. During use, the tips of the cutting lines will become frayed and worn. You may feed the cutting lines by either Auto-Feed or Manual-Feed.

CAUTION: Do not bump trimmer on ground in attempt to feed line or for any other purposes.

Feeding the Cutting Line Automatically

When initially switching on the trimmer, a small length of line is fed out. Each time the trimmer is started, the line will advance about 1/4".

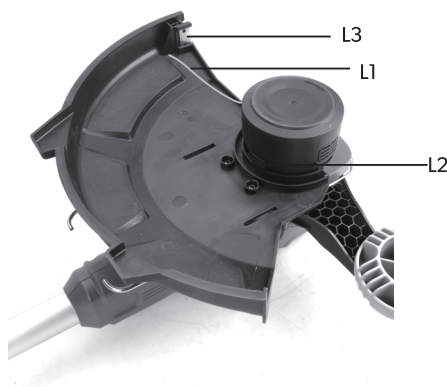
You will hear a 'clattering' noise when the lines hit the line cutter (L3). This is normal. After a few seconds the line will be cut to the correct length and the noise will reduce as the motor gains full speed. If the noise of the line being cut can't be heard, more line will need to be fed out. To feed more line, stop the trimmer completely; then restart, allowing the motor to reach full speed. Repeat above until you hear the line hitting against the line cutter.

Feeding the Cutting Line Manually

If required, the cutting line can be fed out manually.

1. Turn off the trimmer and remove the battery.
2. Press and release manual line feed button (L2).
3. Gently pull out the line (L1).
4. Repeat the step 2 and 3 until the cutting line is long enough to reach the line cutter.

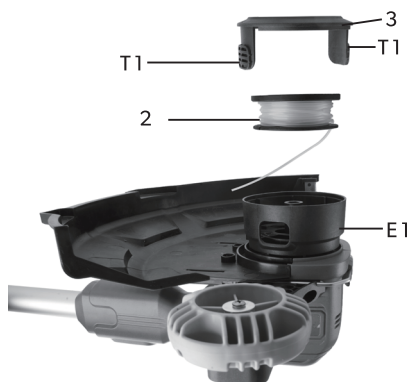
NOTE: If too much line is fed out, remove the spool cap and turn spool counterclockwise until the line is at the desired length.



Spool Replacement (Fig 11)

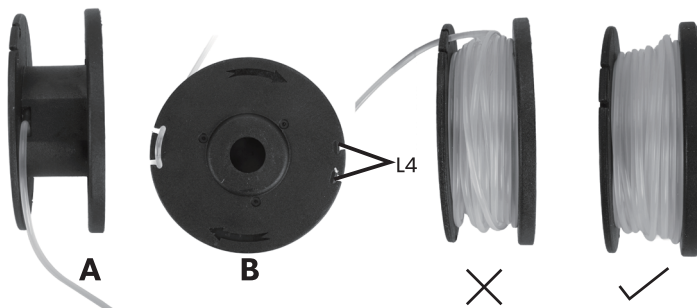
For optimal performance, use the genuine replacement spool

1. Remove the battery pack.
2. Push in tabs (T1) on both sides of spool cap (3) and remove the spool cap.
3. Remove the old spool.
4. To install the new spool (2), make sure the line is captured in the two slots on the top of the spool.
5. Thread the line through the eyelet (E1) before installing the new spool in the place.
6. Pull the line extending from the line head and release the line from the slots in the spool.
7. Reinstall the spool cap by depressing tabs into slots and pushing down until the spool cap clicks into place.



Line Replacement

1. Remove the battery.
2. Remove the spool from the line head.
3. Remove any old line remaining on the spool.
4. Cut a piece of line approximately 20 ft. long. Use only 0.065" diameter round or twisted line.
5. Insert one end of the new line into the hole in the center column of the spool (refer to A), then wind the line around the spool in the direction as shown on the spool. See FIG B.
6. Leave approximately 4" of the line unwound and secure the line by using the slots (L4).
7. Make sure to wind the line neatly and in layers. Do not crisscross. After winding the line, there should be at least 1/4" between the wound line and the outside edge of the spool.
8. Replace the spool and the spool cap. Refer to Spool Replacement in this manual.



APPLICATIONS

Using The Trimmer

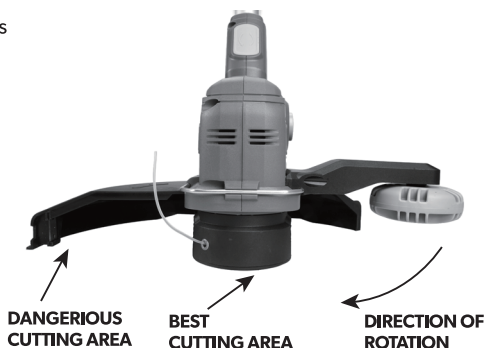
Follow these tips when using the trimmer.

- Hold the trimmer with your right hand on the rear handle and your left hand on the auxiliary handle.
- Keep a firm grip with both hands while in operation.
- Trimmer should be held at a comfortable position with the rear handle about hip height.
- Allow the trimmer to reach its full speed before cutting grass.
- Maintain a cutting angle of 5° to 10°.
- Cut tall grass from the top down. This will prevent grass from wrapping around the boom housing and string head which may cause damage from overheating.
- If grass becomes wrapped around the string head, remove the battery and then remove the grass.

WARNING: Always hold the string trimmer away from the body, keeping clearance between the body and the string trimmer. Any contact with the string trimmer cutting head while operating can result in serious personal injury.

Cutting Tips

- Keep the trimmer tilted toward the area being cut, this is the best cutting area.
- The trimmer cuts when passing the unit from left to right. This will avoid throwing debris at the operator.
- Avoid cutting in the dangerous area shown in FIG.
- Use the tip of the line to do the cutting; do not force the string head into uncut grass.
- Wire and picket fences cause extra line wear, even breakage. Stone and brick walls, curbs, and wood may wear line rapidly

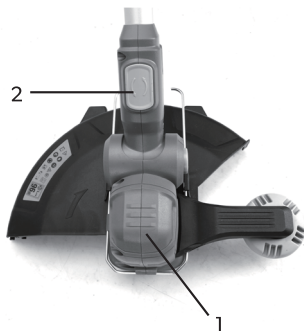


Edging

This trimmer can be easily converted to the edger mode.

1. Remove the battery pack.
2. Press the head rotation locking button (1) and hold.
3. Rotate the motor head 90° clockwise.
4. Release the locking button to lock motor head (2) in the edger position.

WARNING: Never stand directly in the path of the cutting line while edging. Always stand to the left of the grass deflector to avoid thrown debris, which could result in serious personal injury.



MAINTENANCE

IMPORTANT:

Read and understand the safety regulations and the maintenance instructions before you clean, repair or do the maintenance work on the machine.

IMPORTANT:

Make sure that all nuts, bolts and screws are tight. Examine regularly that you install the handles tightly.

IMPORTANT:

Use only the replacement parts and accessories of the initial manufacturer.

GENERAL INFORMATION**IMPORTANT:**

Only your dealer or approved service center can do the maintenance that is not given in this manual.

Before the maintenance operations:

- Stop the machine.
- Remove the battery pack.
- Cool the motor.
- Store the machine in cool and dry place.
- Use correct clothing, protective gloves and safety glasses.

CLEAN THE MACHINE

- Clean the machine after use with a moist cloth dipped in neutral detergent.
- Do not use aggressive detergents or solvents to clean the plastic parts or handles.
- Keep the trimmer head free of grass, leaves, or excessive grease.
- Keep the air vents clean and free of debris to avoid overheating and damage to the motor or the battery.
- Do not spray water onto the motor and electrical components.

TRANSPORTATION AND STORAGE

MOVE THE MACHINE

When you move the machine, you must:

- Wear gloves.
- Stop the machine.
- Remove the battery pack and charge it.
- Assemble the blade guard.

STORE THE MACHINE

- Remove the battery pack from the machine.
- Make sure that children cannot come near the machine.
- Keep the machine away from corrosive agents such as garden chemicals and de-icing salts.
- Secure the machine during transportation to prevent damage or injury. Clean and examine the machine for any damage.

TROUBLESHOOTING

problem	possible causes	Likely Solutions
Tool will not start.	1. Battery Pack not properly connected. 2. Battery Pack not properly charged. 3. Battery Pack worn out. 4. Internal damage or wear. (Carbon brushes or Trigger, for example.) 5. Contact chips of switch or battery pack deformed. 6. Battery is not suitable for TOLSEN X20V lithium-ion power platform system 7. Overload operation	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. 2. Make sure Charger is connected and operating properly. Give enough time for Battery Pack to recharge properly. 3. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 4. Have technician service tool. 5. Replace switch or Battery Pack 6. Replace the battery of TOLSEN X20V 7. Stop to use and restart the machine after cooling.
Tool operates slowly.	1. Material too thick. 2. Battery Pack worn out. 3. Low battery.	1. Thin out material. 2. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 3. Recharge or replace a fully charged battery.
Performance decreases over time	1. Carbon brushes worn or damaged. 2. Trimmer line is broken	1. Have qualified technician replace brushes. 2. Use new line or replace trimmer line spare parts.
Excessive noise / shake or rattling.	Internal damage or wear.(Carbon brushes or bearings,for example.)	Have technician service tool.
Overheating.	1. Material too thick. 2. Blocked motor housing vents.	1. Thin out material. 2. Clean the Blocked motor housing vents.



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