

# TOLSEN X20

**97140**

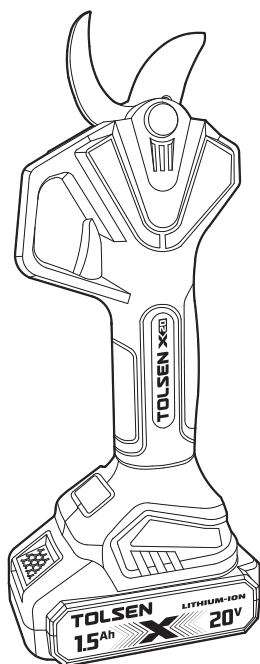
## **LI-ION CORDLESS PRUNING SHEAR**

**INSTRUCTION MANUAL**

**20V LITHIUM-ION**

**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

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**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

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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

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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.

## Usage and Care for Pruning Shear

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1. Do not cut branches beyond the specified diameter indicated, do not cut hard items such as metals, stone or any other non-plant materials. If the blades are worn or damaged, please replace the blades.
2. Keep the pruning shear clean, use a clean cloth to clean the pruning shear, battery and charger (do not use any abrasive or solvent-based cleaning agent), use a soft brush or a dry to clean the dust off the pruning shear head.
3. Do not immerse the pruning shear, battery or charger in any liquid.
4. Follow instructions as given for proper use of the pruning shear, do not use the pruning shear when the tool itself, battery or charger is damaged.
5. Do not use the pruning shear if it could not operate or shut down properly, send for servicing immediately. It is dangerous to use the pruning shear when the tool could not operate or shut down properly.
6. Please ensure the power pruning shear is powered OFF during any adjustment, changing accessories or storage. This protective measure aims to reduce the risk of accidental pruning shear activation.
7. Please ensure the bladed are closed when not in use, storage of the pruning shear must keep out of reach from CHILDREN, do not allow any person who is not familiar with the pruning shear operation or instruction to use the pruning shear, it is dangerous to use the pruning shear without proper training and understanding.
8. The use of the pruning shear must comply with instructions stated in this manual and methods of use as well as taking in considerations of the working environment and nature of work undertaken. The use of the pruning shear not within its stated capability and specifications is dangerous.
9. Remove all dirt from the moving and fixed blades after each use, thereafter apply lubricant on the blade side where both moving and fixed blade contact. This will ensure the blades are maintained in good conditions and reduce resistance during use prolonging the pruning shear and blade lifespan.

## Battery Safety

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### 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

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### 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

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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.**

## 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

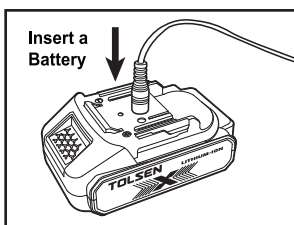
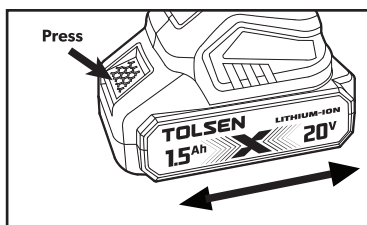
**Note:** Make sure the Battery and tool are lined up correctly. If the Battery does not slide into the tool easily, do not force it. Instead, slide the Battery out of the tool again, check the top of Battery and the tool battery slot are clean and undamaged and that the contacts are not bent

### 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 1.5Ah 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

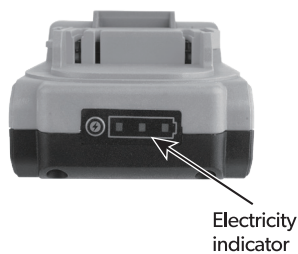
|  |                                                                                                                                                                                                                                                                                                                                                   |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Class II<br>Double insulated for additional protection                                                                                                                                                                                                                                                                                            |
|  | 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                                                                                                                                                                                                                                                                                                                            |
|  | Do not use or exposed electric pruning shear in rainy conditions.                                                                                                                                                                                                                                                                                 |
|  | Never place hands near the cutting area of the electric pruning shear during operations.                                                                                                                                                                                                                                                          |
|  | Never contact charged objects with electric scissors.                                                                                                                                                                                                                                                                                             |
|  | 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                                                                                                                                                                                                                                                                                                                                      |
|  | Internal time lag fuse with a maximum current of 2A.                                                                                                                                                                                                                                                                                              |

SPECIFICATIONS

|                             |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|
| Rated Voltage               | 20VDC                                                                             |
| Shear capacity              | 25mm 1"                                                                           |
| No load speed               | $n_0:19000\text{min}^{-1}$                                                        |
| Battery (96140 not include) |                                                                                   |
| Battery Voltage             | 20VDC                                                                             |
| Battery capacity            | 1.5Ah                                                                             |
| Charger (96140 not include) |                                                                                   |
| Input Voltage               | 110-120VAC 60Hz                                                                   |
| Output Voltage              | 21.5VDC                                                                           |
| Rated output current        | 1.5A                                                                              |
| Charging Time               | 65 minutes fast charging(1.5Ah battery)                                           |
| Protection class            |  |



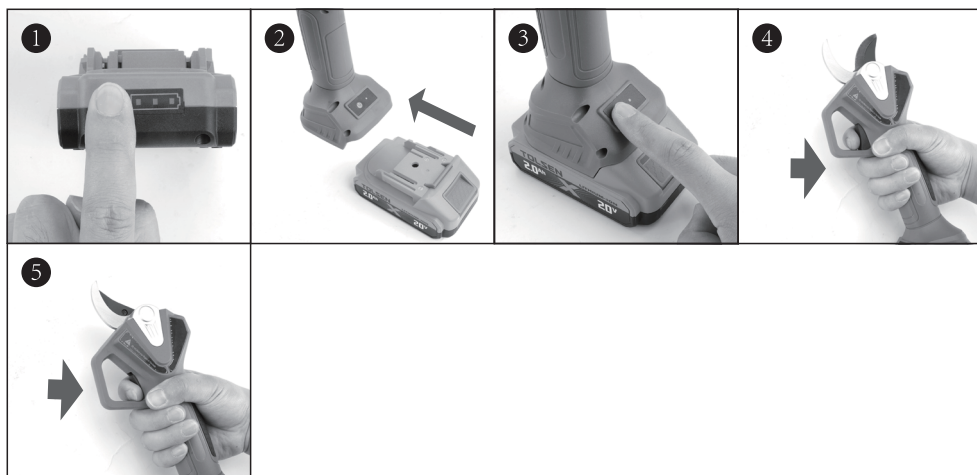
### FUNCTIONS



## PRODUCT OPERATION

### Start operation

1. Open the package, press the battery pack power button the power display light will show, check the battery pack remaining power
2. Insert the battery pack into the interface of the lithium battery tube cutter
3. Turn on the power control switch, the power indicator light shows green, the display screen shows blue, and the buzzer sounds twice when powered on
4. Press and hold the safety switch button, and continuously press the start switch button twice to enter the activation state
5. Normal cutting: Press the start switch button to close the blade. Release the start switch button and open the blade
6. Before starting work, press the start switch button intermittently to close the blade without load a few times, and check if it is normal
7. Start cutting work after normal operation



### Packing up

1. Press and hold the start switch button continuously for more than 5 seconds, the buzzer will sound twice, release your finger, and the blade will close and no longer open
2. Press and hold the power switch button for a few seconds, the buzzer will sound long, turn off the power, and remove the battery
3. Organize, clean, pack

### The machine sleeps and shuts down automatically

After the machine is started, it will automatically sleep for 1 minute without any operation (sound one time)  
Automatic power off and shutdown after 5 minutes of inactivity (sound one time)

### Blade disassembly

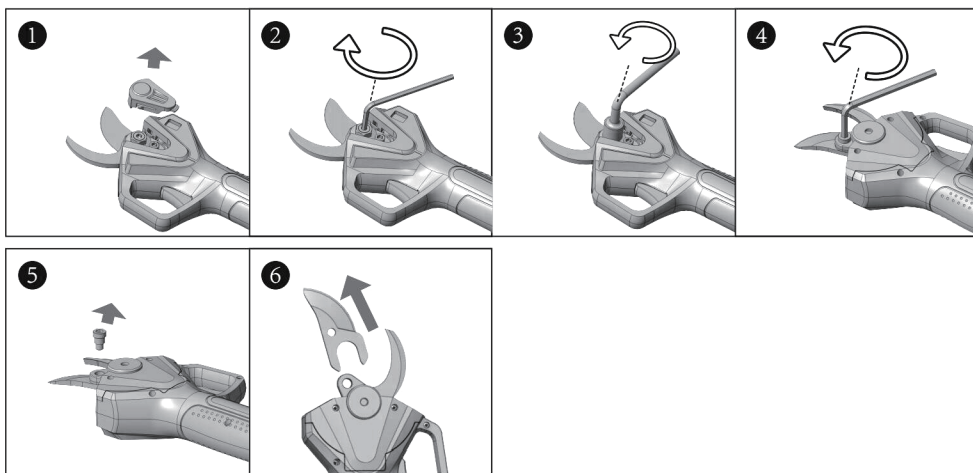
When the moving blade does not coincide well with the lower blade holder, or when the moving blade edge is worn out, it is recommended that you replace the blade.

The operation steps are as follows:

To ensure safety, please turn off the power before replacing and remove the battery.

Follow the steps shown in the following diagram:

1. Remove the nut decorative cover.
2. Use the hex key to loosen the hex screw 2-3 turns clockwise.
3. Use the socket wrench to loosen the hex nut 2-3 turns counterclockwise.
4. Use the hex key to completely loosen the hex screw counterclockwise..
5. Remove the hex screw.
6. Remove the moving blade.

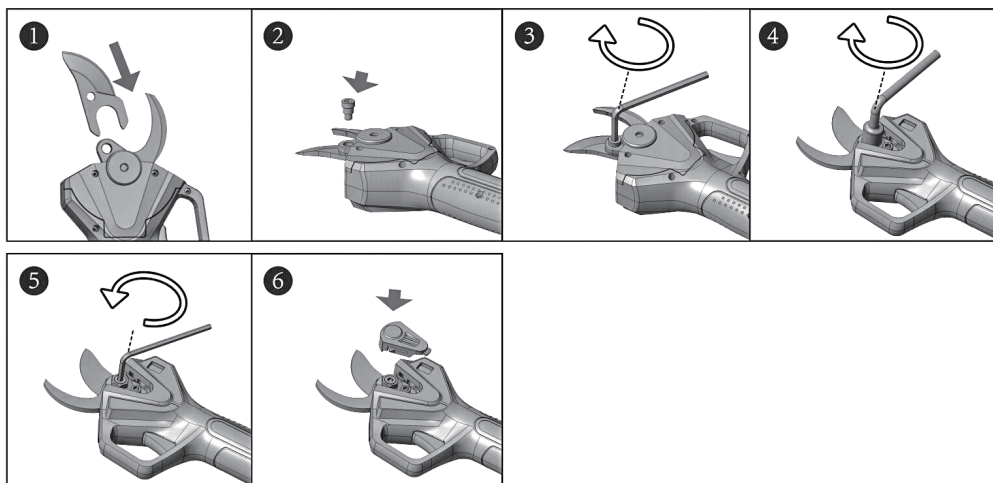


## Blade installation

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Release the switch and remove the battery pack before installation;

1. Insert the lower blade holder into the machine's swing gear at the maximum open position angle.
2. Align the hex screw with the fixing hole on the blade.
3. Use the hex key to tighten the hex screw clockwise.
4. Use the socket wrench to tighten the hex nut clockwise.
5. Use the hex key to firmly tighten the hex screw counterclockwise (or as per instruction, ensuring secure fastening).
6. Install the nut decorative cover onto the machine.
7. Install the battery pack, start the machine, and check if the moving blade opens and closes normally. Confirm the machine is functioning correctly before use.



## 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.

 **CAUTION:** Remove the battery pack from the machine before maintenance.

### CLEAN THE MACHINE

 **CAUTION:**  
The machine must be dry. Humidity can cause risks of electrical shocks.

- Clear the unwanted material out of the air vent with a vacuum cleaner.
- Do not spray the air vent or put the air vent in solvents.
- Clean the housing and the plastic components with a moist and soft cloth.

### TRANSPORTATION AND STORAGE

 **CAUTION:** Remove the battery pack from the machine before transportation and storage.

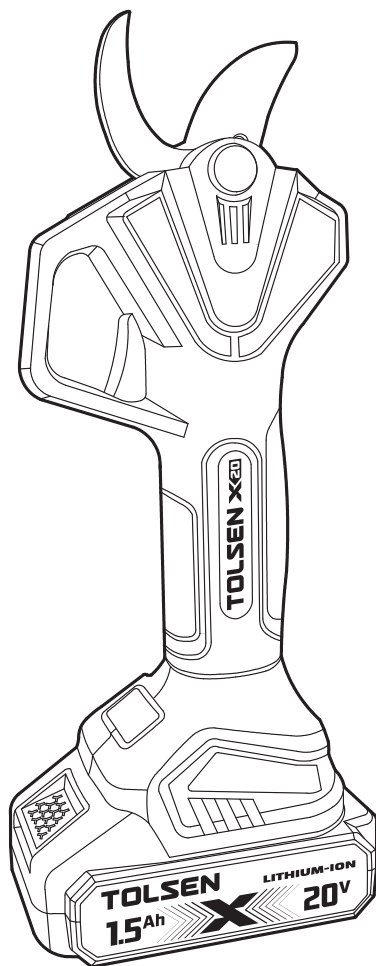
### STORE THE MACHINE

- Clean the machine before storage.
- Make sure that the motor is not hot when you store the machine.
- Make sure that the machine does not have loose or damaged parts. If it is necessary, do these steps/  
instructions:
  - Replace the damaged parts.
  - Tighten the bolts.
  - Speak to a person of an approved service center.
  - Store the machine in a dry area.
  - Make sure that children cannot come near the machine.

## 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. The power control switch is not on.</li> <li>4. Battery Pack worn out.</li> <li>5. Internal damage or wear. (Carbon brushes or Trigger, for example.)</li> <li>6. Contact chips of switch or battery pack deformed.</li> <li>7. Battery is not suitable for TOLSEN X20V lithium-ion power platform system.</li> <li>8. Overload operation.</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. Turn on the power control switch.</li> <li>4. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.</li> <li>5. Have technician service tool.</li> <li>6. Replace switch or Battery Pack</li> <li>7. Replace the battery of TOLSEN X20V.</li> <li>8. Stop to use and restart the machine after cooling.</li> </ol> |
| Tool operates slowly.        | <ol style="list-style-type: none"> <li>1. Cutting superhard branches.</li> <li>2. Battery Pack worn out.</li> <li>3. Low battery.</li> <li>4. Blade dull or damaged.</li> </ol>                                                                                                                                                                                                                                                                                                                 | <ol style="list-style-type: none"> <li>1. Loosen the trigger.</li> <li>2. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.</li> <li>3. Recharge or replace a fully charged battery.</li> <li>4. Keep the blade sharp or replace blade as actual requirements. It is necessary to disconnect power supply before replacing and sharpening blades.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                     |
| Excessive noise or rattling. | Internal damage or wear. (gear or bearings, for example.)                                                                                                                                                                                                                                                                                                                                                                                                                                       | Have technician service tool.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Overheating.                 | <ol style="list-style-type: none"> <li>1. Forcing tool to work too fast.</li> <li>2. Blocked motor housing vents.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                    | <ol style="list-style-type: none"> <li>1. Allow tool to work at its own rate.</li> <li>2. Clean the Blocked motor housing vents</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |





SUZHOU TOLSEN  
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