

TOLSEN MP20^V

87384

LI-ION LAWN MOWER

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 Safety Rules Safety Instructions Read All Instructions

WARNING: When using electric lawn mowers basic safety precautions should always be followed to reduce the risk of fire electric shock, including the following:

WARNING: Risk of injury could occur if the lawn mower is operated without the catcher assembly attached.

WARNING: The use of any other accessory or attachment might increase the risk of injury.

CAUTION: For battery-operated lawn mowers use only identical replacement

Batteries and specifying the battery type and manufacturer, and devices for retaining extension cords are available.

For All Lawn Mowers

1. Avoid Dangerous Environment-Don't use lawn mowers in damp or wet locations.
2. Don't Use in Rain.
3. Keep Children Away-All visitors should be kept a safe distance from work area.
4. Dress Properly-Do not wear loose clothing. They can be caught in moving parts. Use of rubber gloves and footwear is recommended when working outdoors.
5. Use Safety Glasses-Always use face or dust mask if operation is dusty.
6. Use Right Appliance-Do not use lawn mower for any job except that for which it is intended.
7. Don't Force Lawn Mower-it will do the job better and safer at the rate for which it was designed.
8. Don't Over reach -always Keep proper footing and balance at all times.
9. Stay Alert-Watch what you are doing. Use common sense. Do not operate lawn mower when you are tired.
10. Store Idle Lawn Mower Indoors-When not in use. Lawn mower should be stored in an indoor dry, out of reach of children.
11. Maintain Lawn Mower with Care-Keep cutting edges sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Inspect lawn mower cord periodically and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
12. Keep guard in place and in working order.
13. Keep blades sharper.
14. Keep hands and feet away from cutting area.
15. Objects struck by the lawn mower blade can cause severe injuries to persons. The lawn should always be carefully examined and cleared of all objects prior to each mowing.
16. If lawn mower strikes a foreign object, follow these steps:
 - a. Stop lawn mower. Release the switch.
 - b. Inspect for damage.
 - c. Repair any damage before restarting and operating the lawn mower.
17. Use identical replacement blades only.

Supplement Warning For Battery-operated Lawn Mower

1. Do not charge lawn mower in rain, or in wet locations.
2. Do not use battery-operated lawn mower in rain.
3. Remove or disconnect battery before servicing, cleaning, or removing material from the lawn mower.
4. Use only the following type and size battery: Lithium Ion-D01102703, D01202903
5. Do not dispose of the battery in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
6. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
7. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.

Safe Practices For Pedestrian-controlled Mowers

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

GENERAL OPERATION

1. Read, understand, and follow all instructions on the machine and in the manual(s) before starting.
2. Do not put hands or feet near or under the machine. Keep clear of the discharge opening at all times.
3. Only allow responsible adults, who are familiar with the instructions, to operate this machine.
4. Clear the area of objects such as rocks, wire, toys, etc, which could be thrown by the blade. Stay behind the handle when the engine (motor) is running.
5. Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
6. Do not operate machine barefooted or while wearing sandals. Always wear substantial footwear.
7. Do not pull machine backward unless absolutely necessary. Always look down and behind before and while moving backward.
8. Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward to the operator. Stop the blade when crossing gravel surfaces.
9. Do not operate machine without the entire grass catcher, discharge guard, rear guard, or other safety protective devices in place and working.
10. Never leave a running machine unattended.
11. Stop the engine (motor) and wait until the blade comes to a complete stop before cleaning the machine, removing grass catcher, or unclogging the discharge guard.
12. Operate machine only in daylight or good artificial light.
13. Do not operate machine while under the influence of alcohol or drugs.
14. Never operate mower in wet grass. Always be sure of your footing; walk; never run.
15. Disengage the drive system, if so equipped, before starting
16. If the machine should start to vibrate abnormally, stop the engine (motor) and check for the cause immediately. Vibrations are generally a warning of trouble.
17. Always wear eye protection when operating machine.
18. See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.

SLOPE OPERATION

Slopes are a major factor related to slip and fall accidents, which can result in severe injury. Operation on all slopes requires extra caution. If you feel uneasy on a slope, do not mow it.

1. Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
2. Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause a slip and fall accident. Tall grass can hide obstacles.
3. Do not mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.
4. Do not mow near drop-offs, ditches, or embankments. You could lose your footing or balance.

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and under the watchful care of responsible adult other than the operator.
2. Be alert and turn mower off if a child enters the area.
3. Never allow children to operate the machine.
4. Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

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. Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
2. Never remove or tamper with safety devices. Check their proper operation regularly. Never do anything to interfere with the intended function of a safety device or to reduce the protection provided by a safety device.
3. Keep machine free of grass, leaves, or other debris build up. *Clean up oil or fuel spillage and remove any fuel soaked debris. Allow machine to cool before storing.
4. If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before starting.
5. Never make any adjustments or repairs with the engine (motor) running. *Disconnect the spark plug wire and ground against engine to prevent unintended starting.
6. Always unplug electric mowers before adjusting, cleaning, or repairing.
7. Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
8. Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
9. Maintain or replace safety and instruction labels, as necessary.

Battery Safety



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



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



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: Symbology

	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
	Remove activation key before Servicing and cleaning
	Beware of server toes or hands. Do not put hands or feet near a rotating blade.
	Do not expose the product to rain or moist conditions.
	Keep bystanders at a safe distance (at least 16.5ft)
	Always keep the lawn mower on the ground when mowing. Tilting or lifting the lawn mower may cause stones to be thrown out.
	Beware steep slope hazard
	Look behind while backing
	Grass bin empty
	Grass bin full
	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

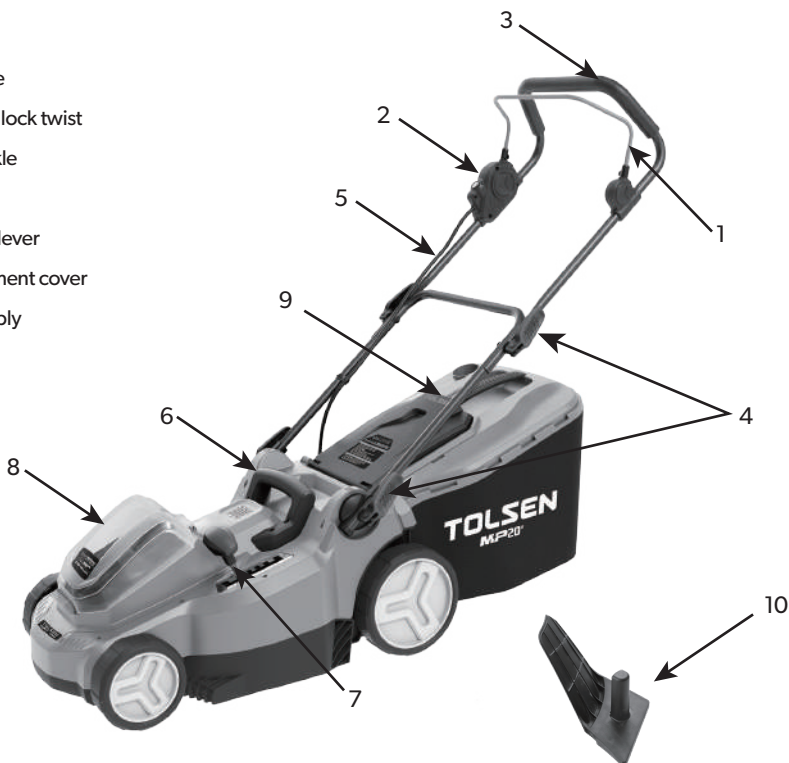
SPECIFICATIONS

Rated voltage	2x20VDC
Output power	1000W
No-load speed	n_0 : Max. 3400 min ⁻¹
Cutting width	15" (375mm)
Cutting height	25-75mm (1"-3")
Collector capacity	40L
Running time	50-60mins (2PCS 4.0Ah battery 87474)
Cutting area	200-250m ² (2PCS 4.0Ah battery 87474)
Front wheel size	6"
Rear wheel size	8"



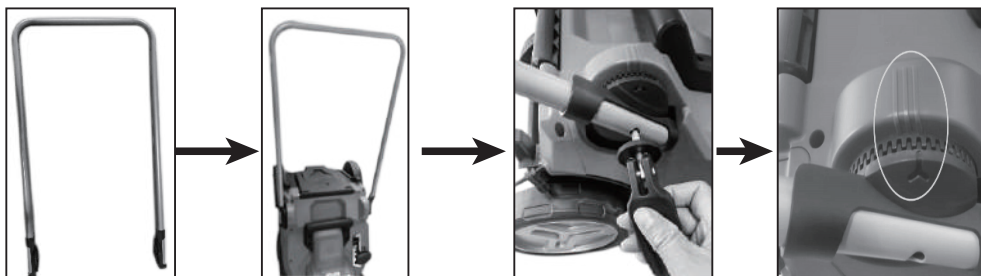
FUNCTIONS

1. Trigger
2. Switch button
3. Operating handle
4. Upper and lower lock twist
5. Cable fixing buckle
6. Machine handle
7. Height adjusting lever
8. Battery compartment cover
9. Grass box assembly
10. Blanking cap



INSTALLATION AND OPERATION INSTRUCTION

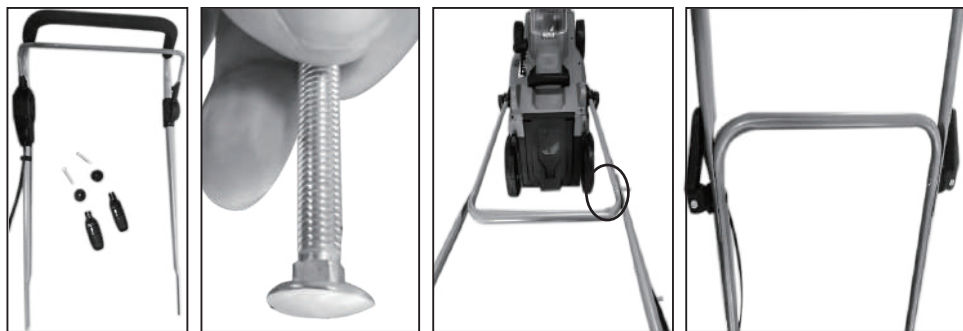
Lower Handle Installation



- Install the lower handle on the machine.
- Thread the screw locking wrench and the plastic pad through the mounting hole of the lower handle tube in turn.
- Turn the lock twist clockwise until the handle is securely connected with the machine

Note: You can install the handle according to the Angle you need. For details, see the relative position between the arrow mark on the handle and the Angle mark on the machine. Note that the corresponding positions of the angles on the left and right sides should be consistent.

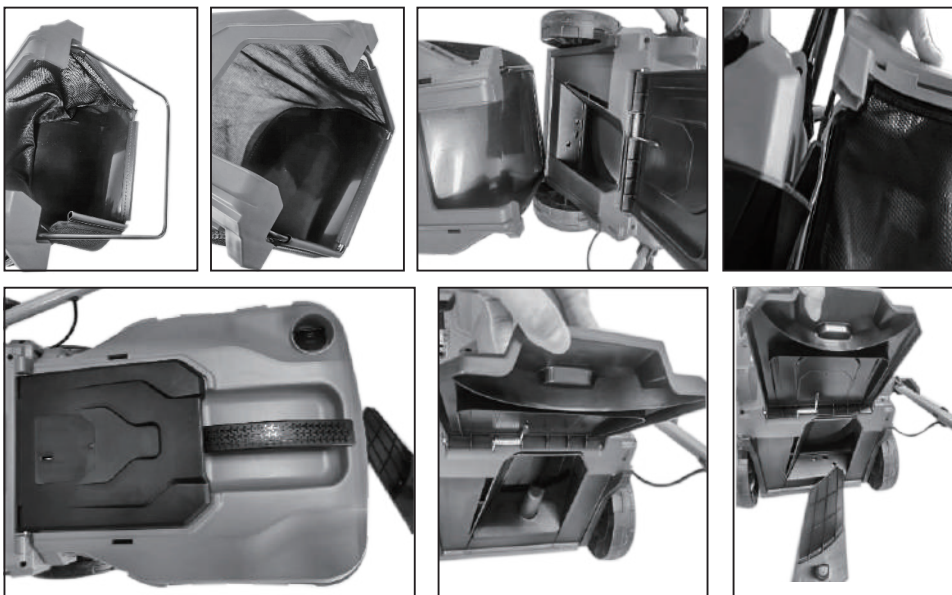
Upper Handle Installation



- Prepare the bolts and fittings for the upper handle
- thread the square neck bolt through the square hole on the inside of the upper handle and ensure that the square neck of the bolt is fully inserted into the square hole on the inside of the upper handle
- Install the plastic flat washer and locking twist on the screw teeth of the square neck bolt in turn and turn the locking twist clockwise until the upper handle is firmly connected with the lower handle.

WARNING: To reduce risk of personal injury, ensure that the upper and lower handles are properly installed on the machine and the connection is firm and reliable. An unreliable connection may result in the user's inability to operate the machine and cause injury to the user.

Grass Box Assembly Installation



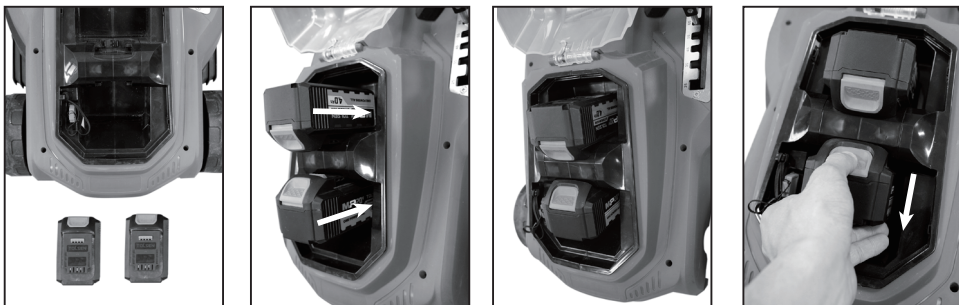
- a. Clamp the plastic strip from the nylon bag to the iron bracket
- b. Open the back cover of the machine, install the straw box assembly to the machine, and then lower the back cover of the machine

NOTE: When installing the machine for the first time, if the grass collecting mode is selected, please remove the blanking cap on the machine before installing the grass box assembly on the machine. If the grass shredding mode is selected, do not remove the blanking cap; As shown in figure a.

WARNING: To reduce risk of personal injury, the installation and removal of the grass box assembly or blanking cap must ensure that the machine is in a static state, and the power supply of the machine must be turned off.

WARNING: To reduce risk of personal injury, after the installation of the grass collecting frame or cover, please carefully check it to ensure that it is completely installed on the machine, otherwise there will be the risk of being hurt by parabolic objects during use.

Installation And Remove Of Battery Packs

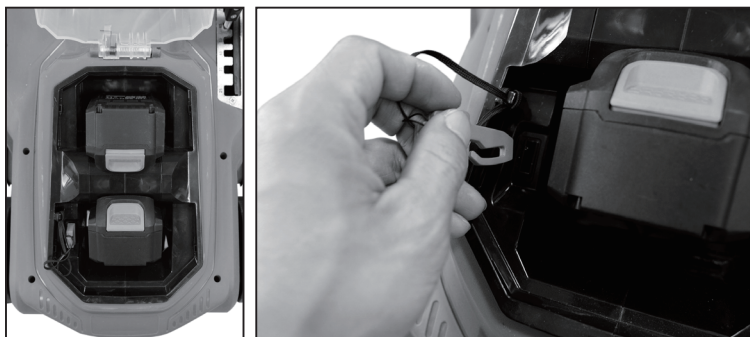


- a. Open the battery compartment cover and insert the two battery packs through the chute of the machine.
- b. Insert the battery pack. If the battery pack button is locked, the battery pack is installed properly

Remove battery packs

- a. Press the battery pack button and remove the battery pack outwards from the machine chute until the battery pack is completely separated from the machine

Activation key instructions



- a. The mower will not work without the activation key, which is a safety feature. When you hold your finger slowly at the top of the security, insert the security key into the specified location.

Note: Before using the machine, please check that the activation key is correctly inserted into the machine, otherwise the machine will not work

WARNING: To reduce risk of personal injury, remove the key before you carry out any maintenance, clear any grass, carry the mower or put your hands near the blade, Otherwise, there is a risk of serious injury.

WARNING: To reduce risk of personal injury, before the machine is stored, please remove the activation key to prevent children from accidentally triggering the machine switch and causing injury

Operating The Cordless Lawn Mower

- a. Press button "1" and hold it, then press the switch trigger link "2" to the position of the operating handle, and the machine will be started.
- b. Directly release the switch trigger link "2", the machine will stop running



Instructions For Cutting Height Adjustment

- a. The machine has 6 cutting-height settings between 25mm to 75mm; To adjust the height, hold the lever firmly and move it into the notch required.

Note: When cutting on uneven ground, it is suggested you test the cutting height on settings will scalp uneven lawns and reduce a small patch of grass, to avoid cutting your lawn's resistance to wear and drought. Too deep and creating bald patches.

WARNING: To reduce risk of personal injury, wait for the blade to stop rotating and remove the activation key before adjusting the cutting height.



To Carry A Lawn Mower

- a. There is a handle on the middle of the mower. It allows you to carry the machine more easily.

WARNING: To reduce risk of personal injury, before carrying the mower, make sure the activation key is removed to avoid starting it accidentally.



Cutting Instructions



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.	<ol style="list-style-type: none"> 1. Battery Pack not properly connected. 2. Battery Pack not properly charged. 3. Battery Pack worn out. 4. Internal damage or wear. 5. Contact chips of switch or battery pack deformed. 6. Battery is not suitable for TOLSEN MP20V lithium-ion power platform system 7. Overload operation. 8. PCB damages. 9. Motor damages. 	<ol style="list-style-type: none"> 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 MP20V 7. Stop to use and restart the machine after cooling. 8. Replace damaged PCB. 9. Replace damaged motor.
Tool operates slowly.	<ol style="list-style-type: none"> 1. Battery Pack wearing out. 2. Low battery 3. Blocked motor housing vents. 	<ol style="list-style-type: none"> 1. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 2. Recharge or replace a fully charged battery 3. Clean the Blocked motor housing vents
Excessive noise or rattling.	Internal damage or wear.(gear or bearings, for example.)	Have technician service tool.

CE DECLARATION OF CONFORMITY

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

Declare that the product
87384
LI-ION LAWN MOWER

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

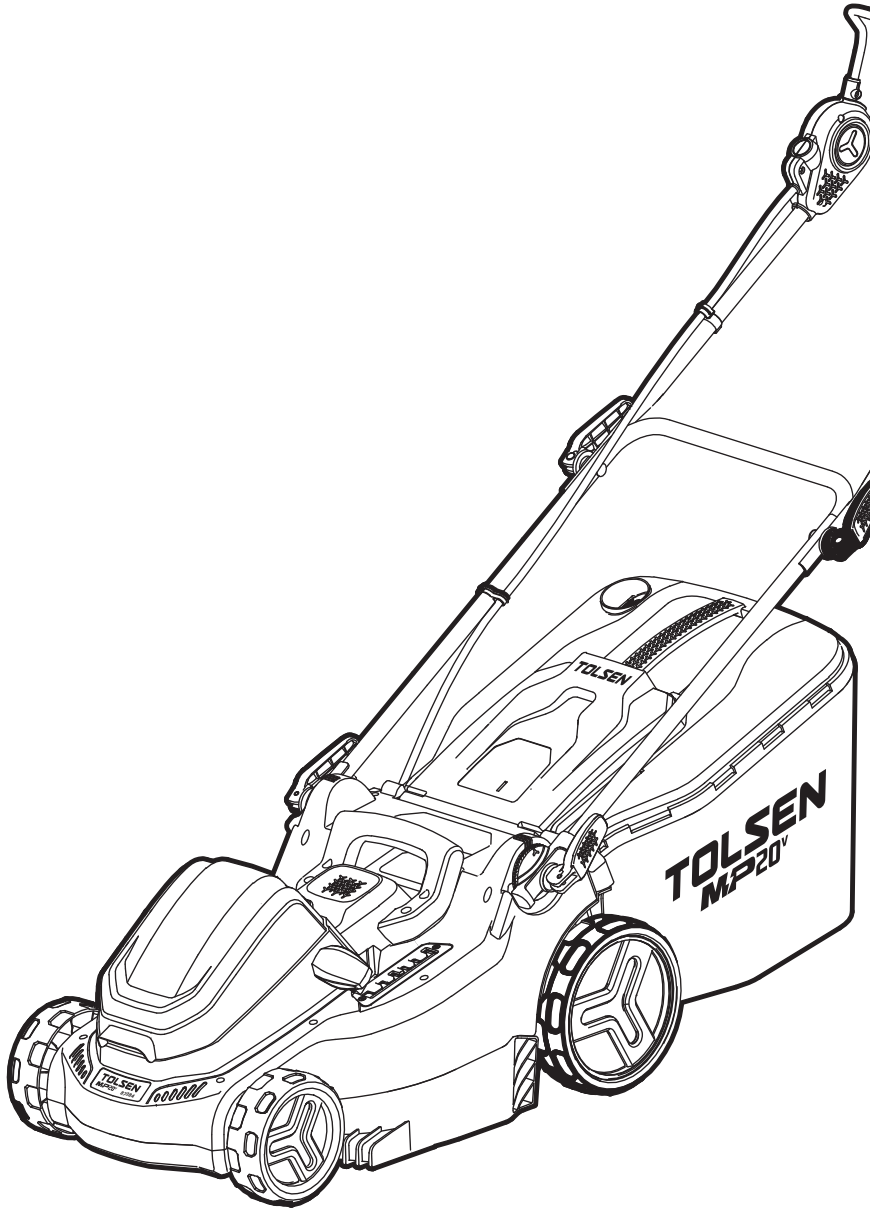
Standards and technical specifications referred to:
EN 62841-1:2015+A11:2022
EN IEC 62841-4-3:2021+A11:2021

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





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