

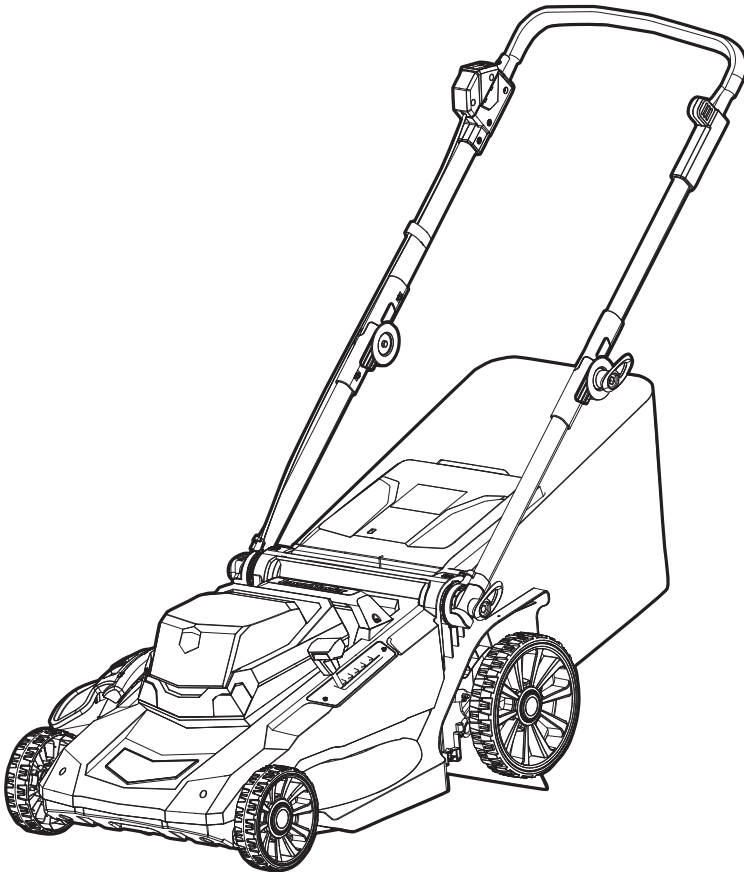
LawnMaster[®]

Operator's Manual

21" 48V MAX* Lithium-Ion Cordless Mower CLMF4821A

Save this manual for future reference

* Maximum initial battery workload voltage (measured without a workload) is 48 volts (2*24 V).
Nominal voltage is 43.2 volts (2*21.6 V).



Battery Model Number is 24LB4005-CN
Charger Model Number is 24LFC15-ETL



Read all safety rules and instructions carefully before operating this tool.

Distributed By: Suzhou Cleva Electric Appliance Co., Ltd.
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SPECIFICATIONS

48V MAX* CORDLESS MOWER

Type	Cordless, Battery-powered
No-load Speed	3200, 3300, 3400 RPM
Deck Width	21" (533 mm)
Cutting Width	20" (505 mm)
Height Adjustments	6 Positions (1.4"-3.4") (35-85 mm)
Functions	Mulching Plug, Grass Collection Bag, Side Discharge
Wheel Size	6.70" (170 mm) / 9.25" (235 mm)
Unit Weight (With two 4.0Ah Batteries)	36.2 lbs (16.4 kg)

BATTERY PACK

Model Number	24LB4005-CN
Rated Voltage of Battery	24 V Max* D.C.
Capacity of Battery	4.0 Ah
Battery Type	Lithium-Ion

BATTERY CHARGER

Model Number	24LFC15-ETL
Charger Input	120 V ~ 60 Hz 120 W
Charger Output	24 V D.C. 4.0 A
Charging Time	150 minutes (For two 24LB4005-CN) 80 minutes (For one 24LB4005-CN)

* Maximum initial battery workload voltage (measured without a workload) is 48 volts (2*24 V).
Nominal voltage is 43.2 volts (2*21.6 V).

IMPORTANT SAFETY INSTRUCTIONS

INTRODUCTION

This product has many features for making its use more pleasant and enjoyable.

Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.



WARNING

This symbol indicates important safety instructions. If these instructions are not followed, it could endanger the personal safety and/or property of the operator and others. Read and understand all instructions in this manual before attempting to operate the mower. Failure to comply with these instructions may result in personal injury.



DANGER

This mower was built to be operated according to the rules for safe operation that are contained in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This mower is capable of amputating body parts and throwing objects. Failure to observe the following safety rules could result in serious injury or death.



WARNING

Use of this mower should be restricted to individuals who have read and understood and will follow the warnings and instructions that are printed in this manual and on the mower.

LAWNMOWER SAFETY WARNINGS



WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this lawnmower. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

1) Work area safety

- To avoid bystander contact with the moving blade or a thrown object injury, *keep the area of operation clear of all bystanders, particularly small children. Stop the lawnmower and any attachment(s) if anyone enters the area. Contact with the moving blade or thrown objects may result in serious personal injury or death.*
 - Only operate the lawnmower in daylight or good artificial light. *Dark areas invite accidents.*
 - Do not operate lawnmowers in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. *Lawnmowers create sparks which may ignite the dust or fumes.*
 - Do not use the lawnmower in bad weather conditions, especially when there is a risk of lightning. *This decreases the risk of being struck by lightning.*
 - Thoroughly inspect the area where the lawnmower is to be used and remove all stones, sticks, wires, bones, and other foreign objects. *Thrown objects can cause personal injury.*
-

IMPORTANT SAFETY INSTRUCTIONS

2) Electrical safety

- Do not expose the lawnmower to rain or wet conditions. *Water entering a lawnmower may increase the risk of electric shock.*

3) Personal safety

- Use personal protective equipment. Always wear eye protection. *Protective equipment will reduce personal injuries.*
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts. *Loose clothes, jewelry or long hair can be caught in moving parts.*
- While operating the lawnmower, always wear long trousers. *Exposed skin increases the likelihood of injury from thrown objects.*
- While operating the lawnmower, always wear non-slip and protective footwear. Do not operate the lawnmower when barefoot or wearing open sandals. *This reduces the chance of injury to the feet from contact with the moving blade.*
- Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or batteries, picking up or carrying the lawnmower.
- *Carrying a lawnmower with your finger on the switch or energizing a lawnmower that has the switch in the on position invites accidents.*
- Remove any adjusting key or wrench before turning the lawnmower on. *A wrench or a key left attached to a rotating part of the lawnmower may result in personal injury.*
- Always keep proper footing and balance. *This allows for better control of the lawnmower in unexpected situations.*
- Stay alert, watch what you are doing and use common sense when operating a lawnmower. Do not use a lawnmower while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating a lawnmower may result in serious personal injury.*
- Do not let familiarity gained from frequent use of lawnmower allow you to become complacent and ignore lawnmower safety principles. *A careless action can cause severe injury within a fraction of a second.*
- To avoid operator blade contact or a thrown object injury, stay in the operator zone behind the lawnmower handles. *Blade contact or thrown objects may result in serious personal injury.*
- Do not touch blades and other hazardous moving parts while they are still in motion. *This reduces the risk of injury from moving parts.*

4) Lawnmower use and care

- Use the lawnmower and accessories in accordance with these instructions, taking into account the working conditions and the work to be performed. *Use of the lawnmower for operations different from those intended may result in a hazardous situation.*
- Before using the lawnmower, always visually inspect to see that the blade(s) and the blade(s) assembly are properly secured and not worn or damaged. *Loose, worn, or damaged parts may increase the risk of injury.*
- Keep guards and other safety devices in place, properly mounted, and in working order. *A guard or other safety device that is loose, damaged, or is not functioning correctly may result in personal injury.*
- Keep all cooling air inlets clear of debris. *Blocked air inlets and debris may result in overheating or risk of fire.*

IMPORTANT SAFETY INSTRUCTIONS

- Do not use the lawnmower if the switch does not turn it on and off. *Any lawnmower that cannot be controlled with the switch is dangerous and must be repaired.*
- Do not operate the lawnmower in wet grass. Walk, never run. *This reduces the risk of slipping and falling which may result in personal injury.*
- Do not operate the lawnmower on excessively steep slopes. *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- Do not force the lawnmower. Use the correct lawnmower for your application. *The correct lawnmower will do the job better and safer at the rate for which it was designed.*
- Be aware of the mower and attachment discharge direction and do not point the mower discharge at anyone. *Thrown objects can cause personal injury.*
- Use extreme caution when reversing or pulling the lawnmower towards you.
- Always be aware of your surroundings. *This reduces the risk of tripping during operation.*
- When working on slopes, always be sure of your footing, always work across the face of slopes, never up or down and exercise extreme caution when changing direction. *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- Operate the disabling device and/or remove all battery packs, if removable, from the lawnmower before making any adjustments, changing accessories, or storing the lawnmower. *Such preventive safety measures reduce the risk of starting the lawnmower accidentally.*
- 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 lawnmower in unexpected situations.*
- Check the grass catcher frequently for wear or deterioration. *A worn or damaged grass catcher may increase the risk of personal injury.*
- Before removing the grass catcher, turn off the motor and wait until the blade(s) comes to a complete stop. The cutting blade(s) continues to rotate after the blade control is released. Never place any part of the body in the blade(s) area until you are certain the motor is off, and the blade(s) has stopped rotating. *Contact with the moving cutting blade(s) may result in serious personal injury.*
- Before unclogging the chute, turn off the motor, wait until the blade(s) comes to a complete stop, operate the disabling device and/or remove all batteries, if removable. The cutting blade(s) continues to rotate after the blade control is released. Never place any part of the body in the blade(s) area until you are certain the motor is off, and the blade(s) has stopped rotating. *Contact with the moving cutting blade(s) may result in serious personal injury.*
- Before cleaning or inspecting the lawnmower, turn off the motor, wait until the blade(s) comes to a complete stop, operate the disabling device and/or remove all batteries, if removable. *Accidental contact with the moving blade and moving parts may result in personal injury.*
- Maintain the lawnmower and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the lawnmower's operation. If damaged, have the lawnmower repaired before use. *Many accidents are caused by poorly maintained lawnmowers.*
- Store idle lawnmowers out of the reach of children and do not allow persons unfamiliar with the lawnmower or these instructions to operate the lawnmower. *Lawnmowers are dangerous in the hands of untrained users.*

IMPORTANT SAFETY INSTRUCTIONS

5) Battery lawnmowers use and care

- Use lawnmowers only with specifically designated battery packs. *Use of any other battery packs may create a risk of injury and fire.*
- Recharge only with the charger specified by the manufacturer. *A charger that is suitable for one type of battery pack(s) may create a risk of fire when used with another battery pack(s).*
- Follow all charging instructions and do not charge the battery pack(s) or lawnmower 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.*
- Do not use a battery pack or lawnmower that is damaged or modified. *Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.*
- Do not expose a battery pack(s) or lawnmower to fire or excessive temperature. *Exposure to fire or temperature above 265°F (130°C) may cause explosion.*
- Under abusive conditions, liquid may be ejected from the battery(ies); avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. *Liquid ejected from the battery(ies) may cause irritation or burns.*
- When battery packs are not in use, keep them 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.*

6) Service

- Have your lawnmower serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the lawnmower is maintained. *Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety.*
- Never service damaged battery packs. *Service of battery packs should only be performed by the manufacturer or authorized service providers.*

MAINTENANCE AND STORAGE

- Use caution when servicing blades. Wrap the blade(s) or wear gloves. Replace damaged blades. Do not repair or alter blade(s).
- Disconnect the battery when not in use, before servicing, and when changing accessories such as blades.
- Store the idle lawn mower indoors. When not in use, the lawn mower should be stored in an indoor dry and locked-up place, out of reach of children.
- Maintain lawn mower with care. Keep cutting edges sharp and clean for best and safe performance.
- Do not wash with a hose; avoid getting water in motor and electrical connections.
- Check the blade and the engine mounting bolts frequently for proper tightness.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Check grass collection bag frequently for deterioration and wear, and replace worn bags. Check that replacement bags comply with the original manufacturer's recommendations or specifications.
- Replace the blade if it is bent or cracked. An unbalanced blade causes vibration that could damage the motor drive unit or cause personal injury.
- Clean the blade thoroughly and check its balance by supporting it horizontally on a thin nail through its center hole. The nail should also be in a horizontal position. If either end of the blade rotates downward, shave some metal from the heavy or lower end until the blade is balanced. It is balanced when neither end drops.

IMPORTANT SAFETY INSTRUCTIONS

- Follow instructions for lubricating and changing accessories.
- Inspect the lawn mower cord periodically and if damaged, have it repaired by an authorized service facility. Keep handles dry, clean, and free from oil and grease.
- Keep guards in place and in working order.
- Keep blades sharp.
- Keep hands and feet away from cutting area.
- 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.
- If the lawn mower strikes a foreign object, follow these steps:
 - Stop lawn mower. Release the switch.
 - Disconnect the battery.
 - Inspect for damage.
 - Repair any damage before restarting and operating the lawn mower.
- When servicing use only identical replacement parts.
- Never pull the mower back towards you while you are walking. If you must back the mower away from a wall or an obstruction, first look down and behind in order to avoid tripping, and then follow these steps:
 - Step back from the mower in order to fully extend your arms.
 - Be sure that you are well balanced.
 - Pull the mower back slowly.

BATTERY PACK

- The battery pack is only compatible with LawnMaster® 24LFC15-ETL, 24LFC14-ETL, 24LFC02-ETL or 24LSC01-ETL chargers.
- Do not charge battery in a damp or wet location. Following this rule will reduce the risk of electric shock.
- Do not place battery powered lawn mowers or their batteries near fire or heat. This will reduce the risk of explosion and possibly injury.
- 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.
- Do not dispose of battery packs in fire. They will explode or leak and cause injury. Liquid ejected from the battery may cause irritation or burns.
- Do not crush, drop or damage the battery pack. Do not use a battery pack or charger that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- Batteries can explode in the presence of a source of ignition, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemicals. If exposed, flush with water immediately.
- Do not modify or attempt to repair the lawn mower or the battery pack (as applicable) except as indicated in the instructions for use and care.
- All tool services should be performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.

BATTERY CHARGER

- This charger is only compatible with LawnMaster® 24LB4005-C, 24LB4005-CN, 24LB1304, 24LB2004, 24LB2605, or 24LB4005 lithium-ion batteries.
- To reduce the risk of injury, charge only the specified lithium-ion rechargeable batteries. Other types of batteries may burst, causing personal injury or damage.

IMPORTANT SAFETY INSTRUCTIONS

- Keep cord and charger away from heat to prevent damage to housing or internal parts.
- Do not operate charger with a damaged cord or plug, which could cause shorting and electric shock. If damaged, immediately discontinue use. Replace the charger with the identical unit as listed in the Parts List of this manual.
- Do not use a charger that has been dropped or received a sharp blow.
- Do not disassemble charger. Take it to a qualified service center for check or replacement. Incorrect reassembly may result in a risk of electric shock or fire.
- Do not abuse the charger cord. Never use the cord for carrying, pulling or unplugging.
- Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock. If the charger cord is damaged, replace the charger with an identical model as listed in this manual.
- A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Charge the battery at the normal charging temperature between 40°F (4°C) and 100°F (38°C).

FCC COMPLIANCE










- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - This device may not cause harmful interference, and
 - This device must accept any interference received, including interference that may cause undesired operation.
- **NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
- This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that of the receiver.
 - Consult the dealer or an experienced radio/ TV technician for help.

SAVE THESE INSTRUCTIONS









Refer to them frequently and use them to instruct others who may use this appliance. If you loan someone this appliance, loan them these instructions also.

SYMBOLS




Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
---	Direct Current	Type or a characteristic of current
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
hrs	Hours	Time
	Class II Construction	Double-insulated construction
	Safety Alert	Precautions that involve your safety
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand Operator's Manual before using this product.
	Do not mow up and down slopes!	To avoid the risk of injury do not mow up and down slopes. Always mow across slopes (Angle $\leq 15^\circ$).
	Keep all persons and pets at a safe distance from the mower while operating!	To avoid the risk of injury to bystanders keep all persons and pets at a safe distance from the mower while operating.
	Keep hands and feet clear of mower deck and discharge opening at all times!	Rotating blades can cause serious injury. Keep hands and feet clear of mower deck and discharge opening at all times. Always be sure blade has stopped after releasing switch lever and disconnecting the batteries before removing and replacing collection bag, cleaning, servicing, transporting or lifting the mower.
	Stay behind the handle when the motor is running!	Objects struck by mower blade can cause serious injury. Stay behind the handle when the motor is running. Always ensure persons and pets are clear of the discharge from the mower while operating.
	Keep bystanders away.	WARNING: Beware of thrown objects. Keep bystanders away.
	Disconnect all batteries before maintenance.	WARNING: Disconnect all batteries before maintenance.

SYMBOLS

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Keep hands and feet away.	Danger: Keep hands and feet away from blade.
	Wear hearing and eye protection when operating this equipment.	Safety alert precautions that involve your safety.
	Cutting Width	Cutting diameter
	Lithium-Ion Battery Recycling	Designates that this tool is in compliance with lithium-ion battery recycling program requirements.
	Keep Away From Water	Do not dispose of battery packs in rivers or immerse in water.
	Keep Away From Fire	Do not dispose of battery packs in explode or leak and cause injury.
	Heat Alert	Do not expose battery packs to heat in excess of 60°C (140°F).
	Recycle Symbol	This product uses lithium-ion batteries. Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	NOTICE	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SYMBOLS

SERVICE

Service requires extreme care and knowledge and should be performed only by a qualified service technician. When servicing, use only identical replacement parts.

For troubleshooting or replacement, please call Customer Service for assistance (Toll free number 866-384-8432).



WARNING

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the Operator's Manual.

If you do not understand the warnings and instructions in the Operator's Manual, do not use this product. Call Customer Service for assistance (Toll free number 866-384-8432).

KNOW YOUR LAWN MOWER

Components

- | | | |
|---------------------------------------|-------------------------------|-------------------------------------|
| 1. Start/Stop Bale Switch | 10. Front Wheel | 19. iPower Control Panel |
| 2. Foam Grip | 11. Side Discharge Chute | 19a. iPower Mower Mode Indicator |
| 3. Upper Handle | 12. Side Discharge Door | 19b. iPower Battery Meter Indicator |
| 4. Wing Knob (X4) | 13. Battery Compartment Cover | 20. Mulching Plug |
| 5. Grass Collection Bag | 14. Carry Handle | 21. Battery Release Button |
| 6. Lower Handle | 15. Safety Flap | 22. Battery Pack (X4) |
| 7. Cutting Height
Adjustment Lever | 16. Control Cable | 23. Battery Charger Indicators |
| 8. Rear Wheel | 17. Cable Fasten Strap | 24. Battery Charger |
| 9. Deck | 18. Safety Switch Button | |

KNOW YOUR LAWN MOWER

The safe use of this product requires an understanding of the information on the product and in this Operator's Manual as well as a knowledge of the project you are attempting to use. Before use of this product, familiarize yourself with all operating features and safety rules.

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call Customer Service (Toll free number 866-384-8432).

YOU WILL NEED (ITEMS NOT SUPPLIED)

- Suitable Personal Protective Equipment

PACKING LIST

- (1) Mower
- (1) Mulching Plug (Pre-installed at Rear of Mower)
- (1) Grass Collection Bag Assembly (Bag & Metal Frame)
- (1) Upper Handle Assembly (Pre-installed with Lower Handles with Wing Knobs)
- (2) Lower Handle Assembly
- (1) Side Discharge Chute
- (2) Wing Knobs with Bolts
- (1) 24V Lithium-ion Battery Charger
- (4) 24V 4.0Ah Lithium-ion Battery Packs
- (1) Operator's Manual



WARNING

If any parts are damaged or missing do not operate this product until the parts are replaced. Failure to heed this warning could result in serious personal injury.



WARNING

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury and will void the warranty.

ASSEMBLY


WARNING

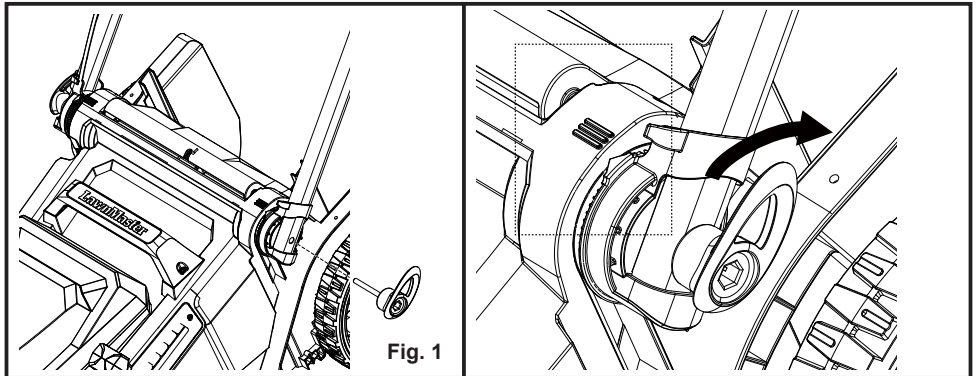
Do not connect the batteries before the product is completely assembled. Failure to comply could result in accidental starting and possible serious personal injury.

WARNING

Never operate the mower without the proper safety devices in place and working. Never operate the mower with damaged safety devices. Failure to heed this warning can result in serious personal injury.

ASSEMBLING THE LOWER HANDLE

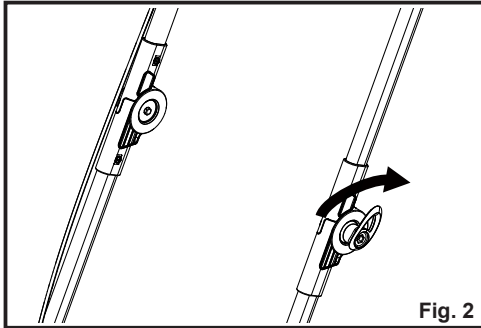
1. Unfold the lower handle. Align the lawnmower housing, lower handle and the wing knob with bolt. Adjust the lower handle to the desired operating position. There are three possible positions  (Fig. 1).
2. Rotate the wing knobs clockwise to tighten (Fig. 1). Do not use excessive force; this may damage the knobs.



ASSEMBLING THE UPPER HANDLE

1. Unfold the upper handle assembly.
2. Align the upper handle and lower handle and secure with the wing knobs (Fig. 2).
3. Ensure the cable is secured against the handle frame with the supplied cable fasten strap.

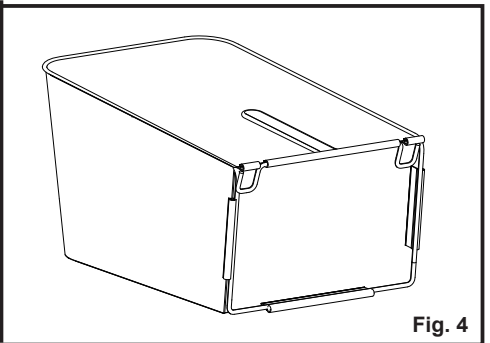
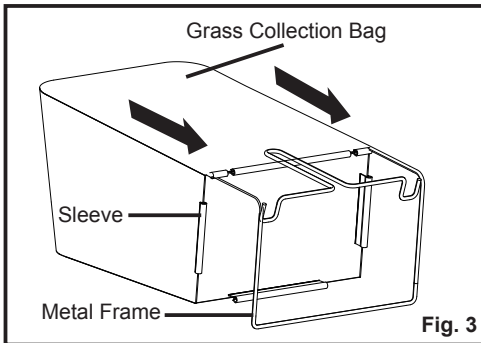
ASSEMBLY



ASSEMBLING THE GRASS COLLECTION BAG

Your LawnMaster® mower comes with a tool-less collection bag.

1. Check the grass collection bag before assembling to make sure there is no damage.
2. Pull the grass collection bag over the steel frame as shown (Fig. 3).
3. Pry the soft plastic clamping sleeves with your fingers and insert the steel frame into the sleeves as shown. Ensure all sleeves are properly clamped with your fingers on the frame.
4. The completely assembled collection bag is shown as below (Fig. 4).



INSTALLING AND REMOVING THE GRASS COLLECTION BAG

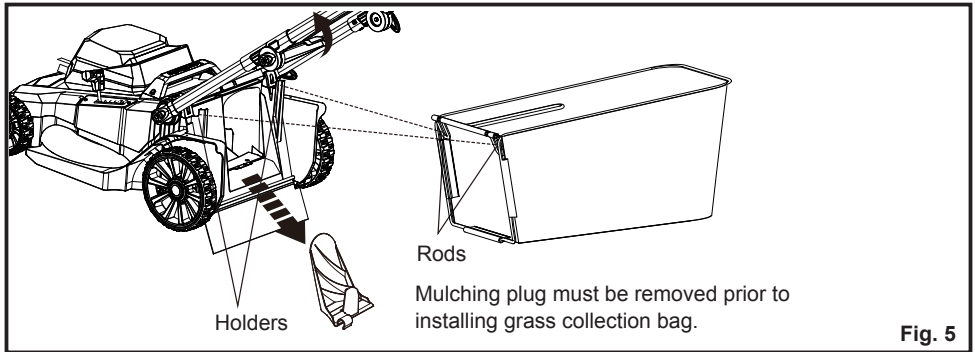
NOTE: When using the grass collection bag, do not install the mulching plug. Your mower is supplied with the mulching plug fitted. The mulching plug **MUST** be removed prior to installing grass collection bag.

Installing the grass collection bag:

1. Lift the rear safety flap and hold it in the position (Fig. 5).
2. Lift the grass collection bag by its handle and hook the rods of collection bag on the mower holder under rear safety flap (Fig. 5).
3. Release the rear safety flap.

ASSEMBLY

4. Make sure both rods are firmly seated on the holder and rear safety flap rests firmly against the top of the grass collection bag.



Removing the grass collection bag:

1. Lift the rear safety flap and hold it in position.
2. Lift the grass collection bag by its handle, and unhook the grass collection bag from the mower.
3. Release the rear safety flap.

NOTE: Under normal usage, the bag material is subject to wear. To reduce the risk of injury, frequently inspect the bag assembly and replace if there are any signs of wear or deterioration.

ATTACHING/REMOVING THE MULCHING PLUG



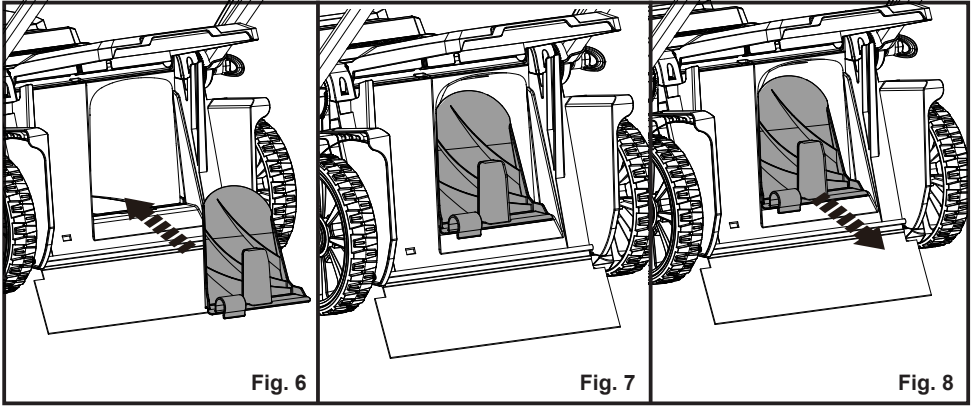
WARNING

Do not at any time make any adjustment to the lawn mower without first stopping the motor and removing the battery packs. Do not attach the grass collection bag and the mulching plug at the same time.

NOTE: The mulching plug **MUST** be removed if grass collection bag is used during mowing operation. The mulching plug prevents grass from being collected by blocking the collection chute. This allows the grass clippings to be deposited back on the lawn during cutting.

1. Lift the safety flap and detach the grass collection bag.
2. Lift the safety flap and hold it in position. Insert the mulching plug into the rear discharge chute (Fig. 6). Ensure the locking button snaps into place, as picture shown (Fig. 7).
3. Press the locking button to release and remove the mulching plug (Fig. 8).

ASSEMBLY

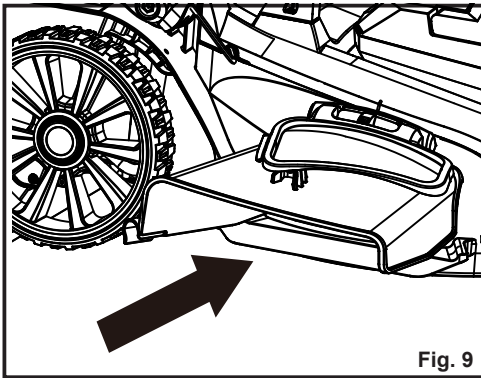


INSTALLING THE SIDE DISCHARGE CHUTE

WARNING

Do not at any time make any adjustment to the lawn mower without first stopping the motor and removing the battery packs. Ensure the mulching plug is fitted when using the side discharge chute. Do not fit the collection bag.

The mower is designed to be able to disperse the clippings back to the lawn when the side discharge chute is fitted. Lift the mulching door and insert the side discharge chute by mounting the support hook onto the metal spring frame. Release the door back down during operation (Fig. 9). This feature is optional and does not need to be fitted at all times.



ASSEMBLY

ADJUSTING THE CUTTING HEIGHT

WARNING

Do not at any time make any adjustment to the lawn mower without first stopping the motor and removing the battery packs. Keep your feet away from the mower deck when adjusting its height.

When shipped, the rear wheels on the mower are set to a low-cutting position. Before using the mower for the first time, adjust the cutting position to the height best suited for your lawn. The mower can be set to 6 cutting heights between 1.4" (35 mm) and 3.4" (85 mm). Choose the proper cutting height according to the types and conditions of the grass. **To set the cutting height:**

1. To raise the cutting height, grasp the cutting height adjustment lever, then move it toward the back of the mower and engage the lever in the desired cutting height position on the mower deck (Fig. 10).
2. To lower the cutting height, grasp the cutting height adjustment lever, then move it toward the front of the mower and engage the lever in the desired cutting height position on the mower deck (Fig. 10).

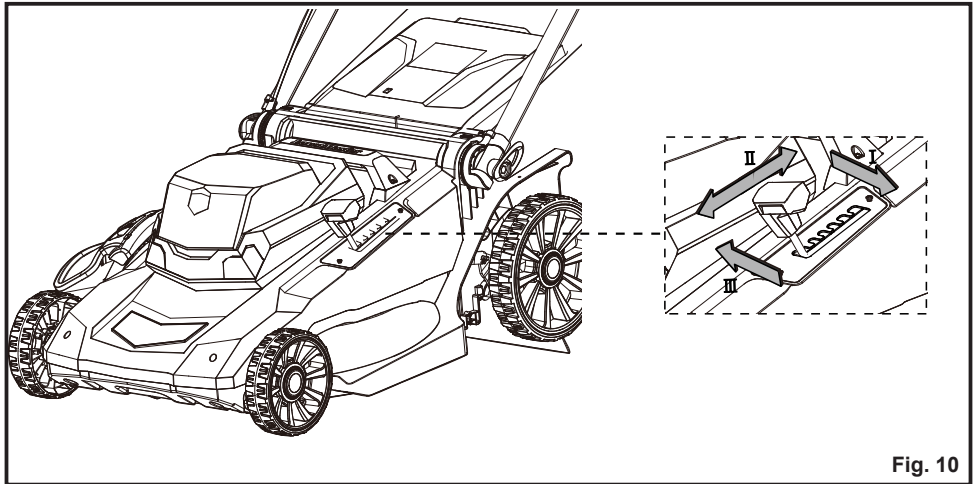


Fig. 10

ASSEMBLY

INSTALLING / REMOVING THE BATTERY PACKS

WARNING

If any parts are broken or missing, do not attempt to attach the battery packs to the mower or operate the mower until the broken or missing parts are replaced. Failure to do so could result in serious injury. Do not connect the batteries and/or the safety key before the product is completely assembled.

NOTE: Both batteries should be installed into the compartments in order to start the mower.

To install battery packs:

1. Make sure both batteries are fully charged.
2. Lift the plastic battery compartment cover on the top of the mower deck.
3. Align the raised ribs on the mower with the grooves in the battery pack, and then insert the battery packs into the compartment (Fig. 11).
4. Push the battery packs until you hear a “click”.
5. Close the battery compartment cover.

To remove battery packs:

1. Stop the lawn mower. Lift the battery compartment cover and remove the safety key.
2. Press the release button on the battery pack, grasp the battery pack firmly and pull out of the battery compartment. Remove the second battery in the same way (Fig. 12).
3. Close the battery compartment cover.

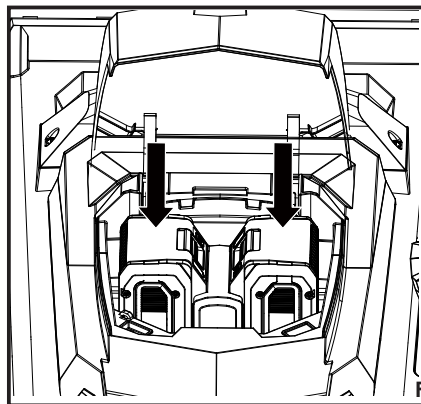


Fig. 11

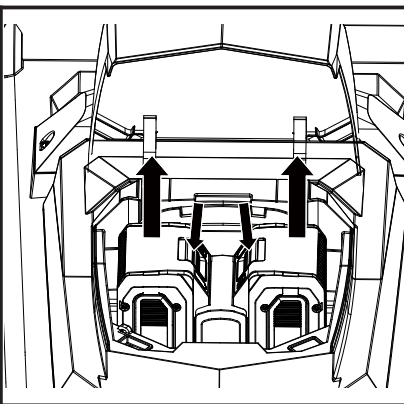


Fig. 12

BATTERY PACK AND CHARGER

BATTERY CHARGING





1. Use only with 24V LawnMaster® battery chargers. The battery charger supplied is specifically designed for the lithium-ion batteries used in this tool.
2. Check the power voltage! Battery chargers operate on 120V.
3. The batteries are charged between 40°F (4°C) and 100°F (38°C). This ensures an optimum battery service life.
4. Protect the batteries from heat, from continuous exposure to sun and keep away from radiation or other heat sources. Do not leave the batteries in the mower in direct sunlight over long periods.
5. The batteries are supplied partially charged. To ensure full capacity of each battery, charge the batteries before using the tool for the first time. The lithium-ion batteries can be charged at any time without reducing their service life. Interrupting the charging procedure does not affect the batteries.

LED CHARGER STATUS

1. If batteries are not inserted into the charger, **continuous red LED lights** indicate that the outlet plug is plugged into an outlet socket and the battery charger is ready for operation.
2. Charging: **Flashing green LEDs** on the charger indicate that batteries are charging normally. The LED's flashing frequency is 1Hz.
3. Charged: Continuous green LEDs on the charger indicate that batteries are ready for use.
4. Technical Issue: **Flashing red LED lights** on the charger indicates that batteries have a charging problem or might be defective.
 - a) One possible condition is the battery temperature is lower than 0°C. As soon as the permitted temperature is reached, the battery charger will automatically switch to charging.
 - b) If the temperature range is correct and flashing red LED light continues, then remove and reinstall the battery pack. If the LED status repeats a second time, try to charge another identical battery. If the battery charges normally, dispose of the defective battery pack (see Environmental Safe Battery Disposal section).
 - c) If the flashing red light continues after installing the second battery, the charger may be defective. Replace with a new one.
5. **Flashing green LED lights** on the charger (the LED's flashing frequency (2Hz) is faster than charging normally (1Hz)), which indicates the battery temperature is higher than 50°C. As soon as the permitted temperature is reached, the battery charger will automatically switch to charging.
6. After continuous or repeated charging cycles without interruption, the charger may warm up. This is normal and does not indicate a technical defect of the battery charger.

BATTERY PACK AND CHARGER

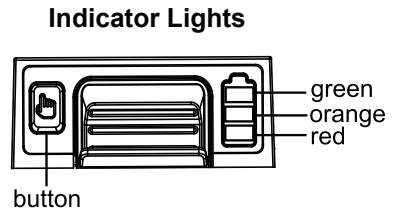
The indicator lights on the charger show the charger status:

SYMBOL	INDICATOR LIGHTS	STATUS
	Red, continuous	Connected to power supply
	Green, blinking. (flashing frequency: 1Hz)	Charging.
	Green, blinking. (flashing frequency: 2Hz)	Battery is overheated.
	Green, continuous.	Fully charged.
	Red, blinking. (flashing frequency: 2Hz)	Charging problem: See Technical Issue above

BATTERY LED PANEL

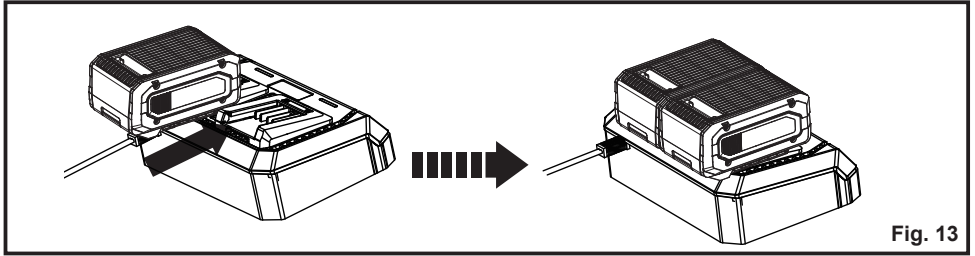
1. The panel consists of 3 LEDs on the battery. Press and hold the button, then release it, the LEDs will show you the charge levels.
2. The battery's charge level can be checked either when the battery is attached on the charger/mower or removed from the charger/mower.

LEDs on Battery (Continuous Lighting)	Battery Capacity
3 LEDs	Fully charged
2 LEDs (orange & red)	≥40%
1 LED (red only)	<40% (Recharge required)



BATTERY PACK AND CHARGER

CHARGING THE BATTERY PACK



WARNING

If any part of the charger is missing or damaged, do not operate it! Replace the charger with a new one. Failure to heed this warning could result in possible serious injury. Check the voltage! The voltage must comply with the information on the rating label.

1. Align the slot of the battery pack with the rail on the charger. Slide the slot onto the rail until the battery pack secures into place. Connect the second battery in the same way (Fig. 13).
2. Connect the charger to the power supply.
3. Allow sufficient charging time (see Specifications), and then disconnect the charger from the power supply.
4. Press the release buttons on the battery packs and remove them from the charger.

NOTE: It is normal for the battery packs and the charger to become warm (but not hot) during charging process. If the battery does not charge properly, check to make sure the electrical outlet is operational. Always charge the battery before storage!

OPERATION



WARNING

Do not allow familiarity with this type of product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.



WARNING

Always wear safety goggles or safety glasses with side shields when operating this product. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.



WARNING

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

STARTING/STOPPING THE MOWER

1. To switch on, press and hold the safety switch button and gently pull the start/stop bale switch (Fig. 14). Once started, release the safety switch button.
2. To power off the mower, release the start/stop bale switch.

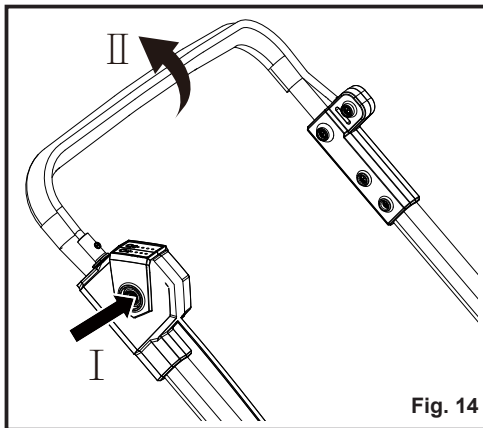


Fig. 14

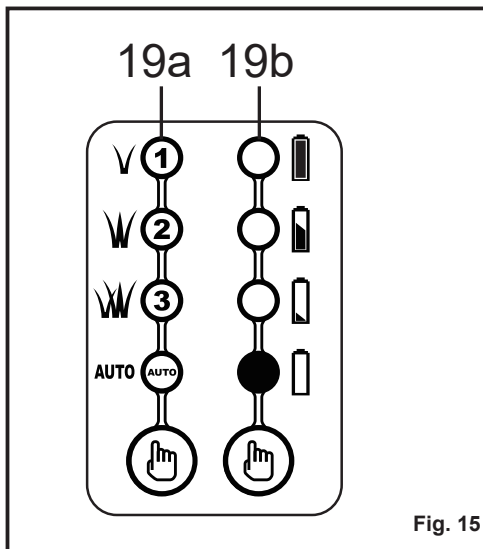
OPERATION

IPOWER MOWER MODE INDICATOR (19a) (Fig. 15)

1. By default, the motor power is set to "AUTO" and will automatically adjust to your lawn.
2. Push the press button repeatedly to cycle through the different motor power levels.
 - Set the motor power to "1", if your lawn needs only light mowing.
 - Set it to "2", if you are going to mow taller and thicker grass.
 - Set it to "3" to utilize the maximum motor power for mowing the most stubborn grass.

IPOWER BATTERY METER INDICATOR (19b) (Fig. 15)

1. Push the press button to check on the battery status.
2. The number of lights lit will depend on the condition of the battery.
3. 4 lights indicate a fully charged battery, and 1 light indicates that the battery needs to be charged.



WARNING

A flashing LED on the mower mode control panel indicates that the current is too high. A flashing LED on the battery indicates that the voltage is too low. In either case the motor will shut down automatically. Do not continue to activate the On/Off switch if the motor has been shut down automatically. The battery may be damaged.

OPERATION

GENERAL OPERATION

Check the product, its power cord and accessories for damage before each use. Before use, please ensure all power connections are in good working order prior to installing battery packs. If damage is present or observed, please stop and have mower serviced before use.

Do not use the product if it is damaged or shows wear.

1. Double-check that the blade is properly installed.
2. Always hold the product by its handles. Keep the handles dry to ensure safe support.
3. Switch the equipment off immediately if someone enters the work area. Always let the equipment come to complete stop before removing the grass collection bag.
4. Do not overwork yourself. Take regular breaks to ensure you can concentrate on the work and have full control over the product.

MOWING TIPS

1. Make sure the lawn is clear of stones, sticks, wires, and other objects that could damage the lawn mower blades or motor. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
2. To reduce the chances of disconnecting the lawn mower from the extension cord, be sure to use the cord retainer provided.
3. For a healthy plot of grass, always cut off one-third or less of the total length of the grass.
4. When cutting heavy grass, reduce walking speed to allow for more effective cutting and a proper discharge of the clippings.
5. Do not cut wet grass. It will stick to the underside of the deck and prevent proper mulching of grass clippings.
6. New or thick grass may require a narrower cut.
7. Clean the underside of the mower deck after each use to remove grass clippings, leaves, dirt, and any other accumulated debris.
8. Mow in slight overlapping rows. The most effective pattern for mowing lawns is in straight lines along one of the sides. This will keep the rows even and ensure that the lawn is cut without missing any spots (Fig. 16).

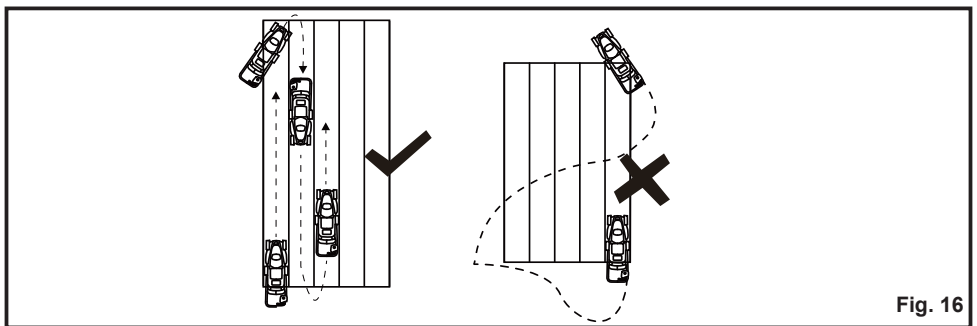
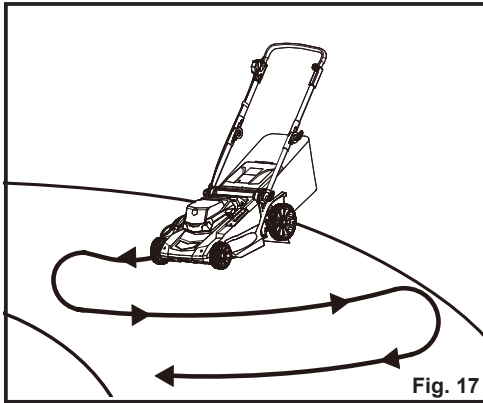


Fig. 16

OPERATION

MOWING ON A SLOPE (Fig. 17)

1. Slopes are a major factor related to slip and fall accidents that can result in severe injury. Mowing on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. For your safety, do not attempt to mow slopes greater than 15 degrees.
2. Mow across the face of slopes, not up and down. Exercise extreme caution when changing direction on slopes.
3. Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles. Remove all objects such as rocks, tree limbs, etc., which could be tripped over or thrown by the blade.
4. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance, release the start/stop bale switch immediately.
5. Do not mow near drop-offs, ditches, or embankments; you could lose your footing or balance.



AFTER USE

1. Switch the product off, remove the battery packs and let it cool down.
2. Check, clean and store the product as described below.

MAINTENANCE



WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.



WARNING

Always wear safety goggles or safety glasses with side shields during power tool operation. If operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease, etc.



WARNING

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

1. Do not at any time make any maintenance to the lawn mower without first stopping the motor and removing the battery packs. Adjust the handle bar or make other adjustments as illustrated in the manual, if necessary or if it can make it easier for maintenance.
2. Periodically check all nuts and bolts for proper tightness to insure safe operation of the mower.
3. Remove any buildup of grass and leaves on or around the motor cover. Wipe the mower clean with a dry cloth occasionally. Do not use water.

LUBRICATION

All of the bearings in this product are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further bearing lubrication is required. At the beginning and end of each mowing season:

1. Lubricate the springs on the rear discharge door with light oil.
 2. Lubricate the cutting height adjustment lever and related hardware with light oil.
 3. Remove the wheels and lubricate the surface of the axle bolt and the inner surface of the wheels with light oil.
 4. Remove the blade and blade hub assembly and lubricate the motor shaft with light oil or engine oil. See Replacing the Cutting Blade section for instructions on removing the blade.
-

MAINTENANCE

WARNING

Always protect hands by wearing heavy gloves and/or wrapping the cutting edges of the blade with rags and other material when performing blade maintenance. Failure to heed this warning could result in serious personal injury.

WARNING

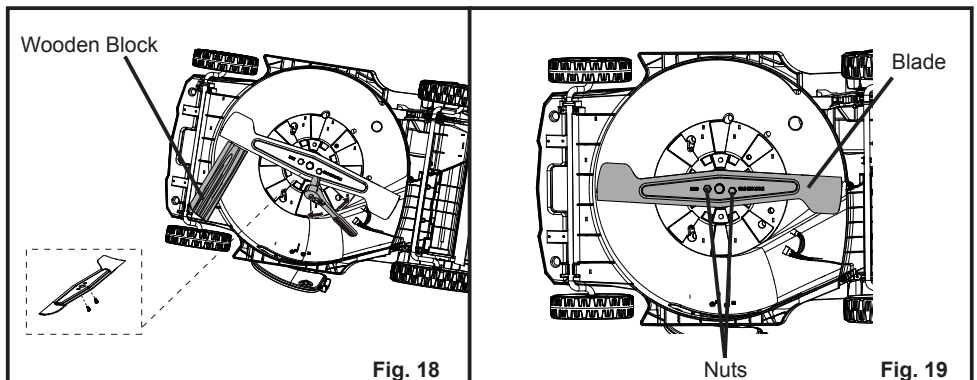
Before performing any maintenance, make sure the mower is switched off and the batteries have been removed. Failure to heed this warning could result in serious personal injury.

REPLACING THE MOWER BLADE

NOTE: Remove the batteries before performing any maintenance!

1. Stop the motor and allow the blade to come to a complete stop.
2. With the blade stopped, remove the BATTERIES from the mower and store in safe location.
3. Remove the grass collection bag from mower if attached.
4. Slowly turn the mower onto its side.
5. Wedge a block of wood between the blade and the mower deck in order to prevent blade from turning while the blade nut is being removed (Fig. 18).
6. Loosen the blade nut using a wrench or socket (not provided).
7. Remove the blade nut by turning counter-clockwise, and then remove the blade.
8. Place the new blade on the shaft. Make sure it is installed with the curved ends pointing up toward the mower deck and not down toward the ground.
9. Thread the blade nut on the shaft and finger tighten.
10. Torque the blade nuts down using a torque wrench (not provided) to ensure the bolt is properly tightened to 16 Nm (Fig. 19).

NOTE: Make certain all parts are replaced in the exact order in which they were removed.



MAINTENANCE

SHARPENING THE BLADE

For best mowing performance, the mower blade must be kept sharp. A dull blade does not cut grass evenly and overloads the motor. Under normal circumstances, sharpening the blade twice during the mowing season is usually sufficient. However, if your lawn has sandy soil, more frequent sharpening may be required.

- Following the instructions in the Replacing The Mower Blade section (Page 30), remove the mower blade. **DO NOT** attempt to sharpen the blade while it is attached to the mower.
- Using a fine-tooth file or sharpening stone, sharpen cutting edges on both ends of the blade, removing equal amounts of material from both ends (Fig. 20).

WARNING

When removing, inspect the blade carefully. If blade is bent or damaged, replace immediately with a new blade. Failure to replace a bent or damaged blade could cause an accident resulting in possible serious injury.

BALANCING THE BLADE (Fig. 21)

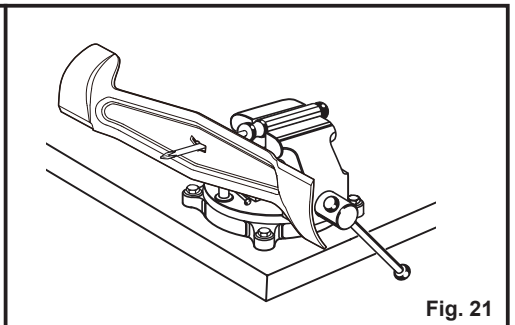
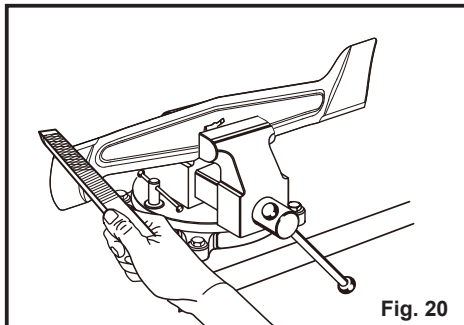
When sharpening, care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration when the mower is running. This vibration will eventually cause damage to the mower, especially the motor.

To check the blade balance:

- Clamp a screwdriver horizontally in a vise as shown.

NOTE: If a vise is not available, a straight nail can also be used.

- Place the center hole of blade on the screwdriver (or nail) shank.
- If blade is balanced, it will remain in a horizontal position. If either end of the blade drops downward, sharpen the heavy side until the blade is balanced.



MAINTENANCE

STORING THE MOWER

1. Remove the batteries from the mower.
2. Turn mower on its side and clean grass clippings that have accumulated on the underside of the mower deck.
3. Wipe the mower clean with a dry cloth.
4. Check all nuts, bolts, knobs, screws, fasteners, etc., for tightness.
5. Inspect moving parts for damage, breakage, and wear. Have repairs made on any damaged or missing parts.
6. Store mower indoors in a clean, dry place out of the reach of children.
7. Do not store near corrosive materials such as fertilizer or rock salt.
 - Remove and clean the grass collection bag.
 - Fully loosen the handle locking knobs on the sides of the handle and fold the upper handle down (Fig. 22).
 - The mower can be stored in the upright position to save place (Fig. 23).

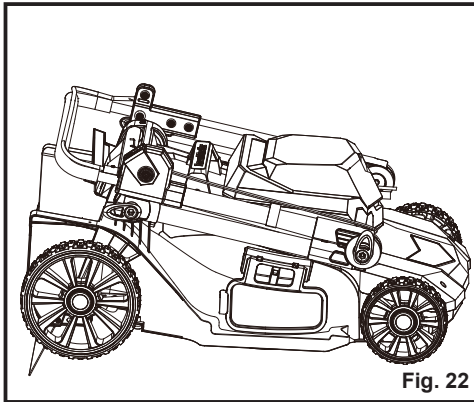


Fig. 22

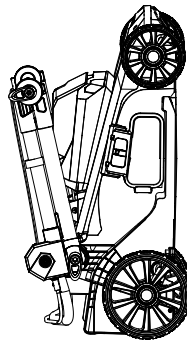


Fig. 23

MAINTENANCE

CLEANING THE MOWER



WARNING

To reduce the risk of electric shock, do not expose the mower to water.



WARNING

Do not at any time make any maintenance to the lawn mower without first stopping the motor and removing the battery packs.

The underside of mower deck should be cleaned after each use as grass clippings, leaves, dirt and other debris will accumulate causing rust and corrosion.

- Remove any buildup of grass and leaves on or around the motor cover (do not use water). Wipe the mower clean with a dry cloth occasionally.
- If debris build up on the underside of the unit while in use, stop the motor and remove the battery packs. Tilt the mower forward, or on its side, and clean.

BATTERY PACK MAINTENANCE

1. Fully charge the batteries before placing in storage.
2. Recharge the battery packs whenever there is a noticeable reduction in the performance. Do not allow the battery packs to become completely discharged.
3. Do not recharge a battery pack that is already fully charged. Overcharging shortens battery life.
4. Once the battery packs are fully charged, remove them from the charger and disconnect charger from the outlet.
5. Do not store the battery packs on the tool or on the charger.
6. If the battery pack is hot, allow it to cool down before recharging.

CHARGER MAINTENANCE

1. Keep the charger clean and clear of debris. Do not allow foreign material into the recessed cavity or on the contacts. Wipe with a dry cloth. Do not use solvents, water, or place in wet conditions.
2. Always unplug the charger when the battery packs are not installed on the charger.
3. Do not store the charger in excessive heat. Do not use in direct sunlight.
4. Disconnect the charger from the AC power outlet when not in use and once batteries have reached a full charge.

ENVIRONMENTALLY SAFE BATTERY DISPOSAL



The following toxic and corrosive materials are in the batteries used in this battery pack:
lithium-ion, a toxic material.



WARNING

All toxic materials must be disposed of in a specific manner to prevent contamination of the environment. Before disposing of damaged or worn out lithium-ion battery packs, contact your local waste disposal agency, or the local Environment Protection Agency for information and specific instructions.



WARNING

If the battery pack cracks or breaks, with or without leaks, do not recharge it and do not use it. Dispose of it and replace with a new battery pack.

DO NOT ATTEMPT TO REPAIR IT!

To avoid injury and risk of fire, explosion, or electric shock, and to avoid damage to the environment:

- Cover the battery terminals with heavy-duty adhesive tape.
- **DO NOT** attempt to remove or destroy any of the battery pack components.
- **DO NOT** attempt to open the battery pack.
- If a leak develops, the released electrolytes are corrosive and toxic. **DO NOT** get the solution in eyes or on skin, and do not swallow it.
- **DO NOT** place damaged or defective batteries in your regular household trash.
- **DO NOT** incinerate.
- **DO NOT** place batteries where they will become part of any waste landfill or municipal solid waste stream.
- Take batteries to a certified recycling or disposal center.

TROUBLESHOOTING

Suspected malfunctions are often due to causes that the user can fix themselves.

Therefore check the product using this section. In most cases the problem can be solved quickly.

WARNING

Only perform the steps described within these instructions!

All further inspection, maintenance and repair work must be performed by an authorized service center or a similarly qualified specialist if you cannot solve the problem yourself!

PROBLEM	POSSIBLE CAUSE	SOLUTION
Mower fails to start.	The batteries are not installed correctly.	Check connection of batteries to mower.
	The batteries are not charged or power is too low.	Charge the batteries.
	The switch is defective.	Call the toll free helpline, at 866-384-8432.
	The blade is jammed.	Stop mower and remove batteries; check for grass and debris under the deck, clean to make blade free to move.
	The batteries are defective or old.	Replace the batteries (call the toll free helpline, at 866-384-8432).
Mower cuts unevenly.	Rough or uneven lawn.	Check the mowing area.
	Cutting height not set properly.	Set the mower at a higher position.
	The blade is dull.	Sharpen or replace the blade.
Mower does not mulch properly.	Wet grass clippings sticking to the underside of the deck.	Wait until the grass dries before mowing.
	Missing mulching plug.	Install the mulching plug.
Mower is hard to push.	High grass and low cutting height. Rear of mower housing and blade dragging in heavy grass.	Raise the cutting height.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Mower vibrates excessively and makes a lot of noise.	The cutting blade is not assembled securely.	Tighten the blade nuts.
	The blade is not balanced.	Sharpen and balance the blade following instructions in this manual (see page 31). Or replace the blade.
	The motor shaft is bent.	Stop the mower and remove the batteries. Call the toll free helpline, at 866-384-8432.

LAWNMASTER® WARRANTY

We take pride in producing a high quality, durable product. This Lawnmaster® product carries a limited two (2) year warranty against defects in workmanship and materials from date of purchase under normal household use. If product is to be used for commercial, industrial or rental use, a 30 day limited warranty will apply. **Batteries carry a one-year warranty against defects in workmanship and materials.** Batteries must be charged in accordance with the operator's manual directions and regulations in order to be valid. Warranty does not apply to defects due to direct or indirect abuse, negligence, misuse, accidents, repairs or alterations and lack of maintenance. Please keep your receipt/packing list as proof of purchase. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. For product service call Customer Service at 1-866-384-8432.

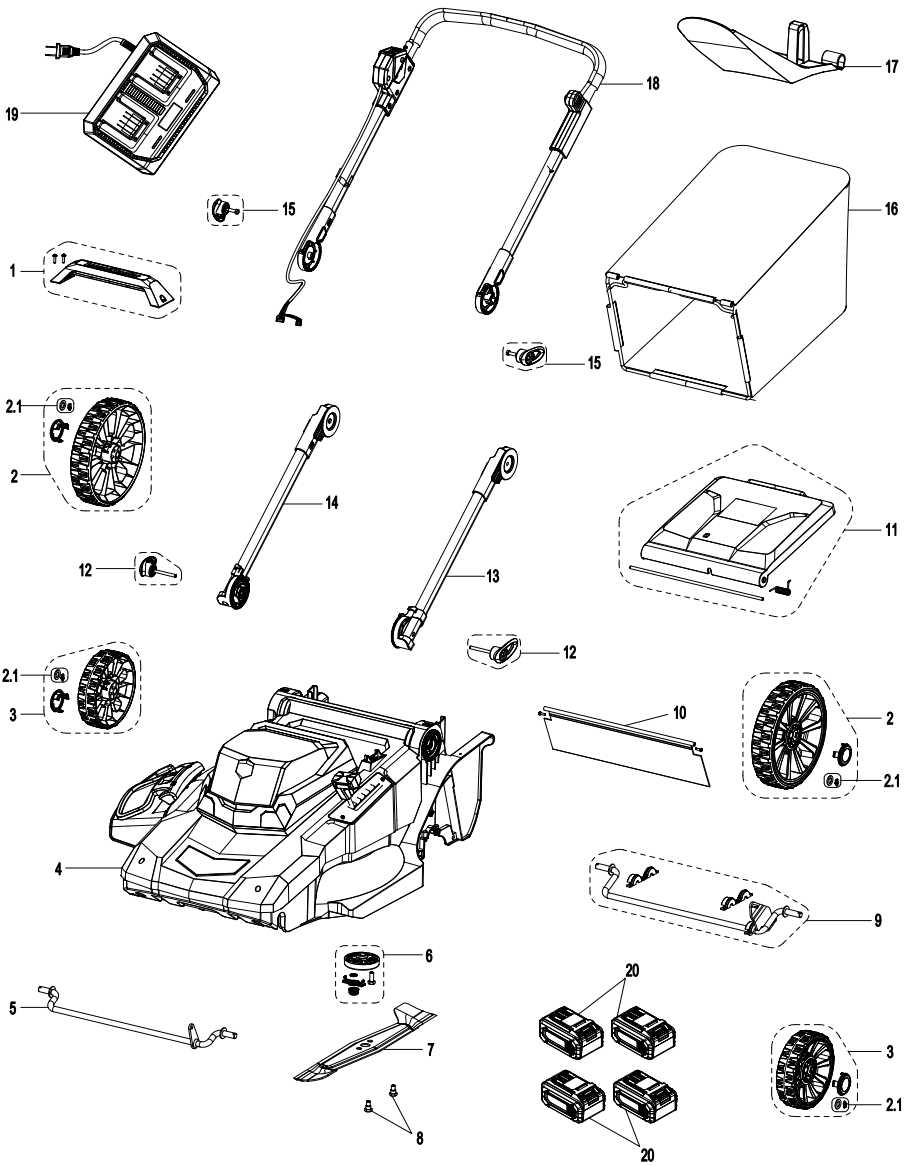
Items not covered by warranty :

1. Any part that has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance, or alteration;
2. The unit, if it has not been operated and/or maintained in accordance with the owner's manual;
3. Normal wear, except as noted below;
4. Routine maintenance items such as lubricants, blade sharpening;
5. Normal deterioration of the exterior finish due to use or exposure.

Transportation Charges : Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. It is the purchaser's responsibility to pay transportation charges for any part submitted for replacement under this warranty unless such return is requested in writing by LawnMaster®.

SAVE YOUR RECEIPTS. THIS WARRANTY IS VOID WITHOUT THEM.

EXPLODED VIEW



PARTS LIST

Key Number	Part Number	Description	Quantity
1		Handle Assembly	1
2		Rear Wheel Assembly	2
2.1		Pin Assembly	2
3		Front Wheel Assembly	2
2.1		Pin Assembly	2
4		Deck Assembly	1
5		Front Axle Assembly	1
6		Blade Holder Assembly	1
7	211064116	Blade	1
8		Blade Nut	2
9		Rear Axle Assembly	1
10		Rear Skin Baffle Assembly	1
11		Safety Flap Assembly	1
12		Lower Handle Wing Knob	2
13		Left Lower Handle	1
14		Right Lower Handle	1
15		Upper Handle Wing Knob	2
16		Grass Collection Bag	1
17		Mulching Plug	1
18		Switch Box Assembly	1
19	211070120	Charger	1
20	211089107	Battery	4

Replacement parts highlighted in grey are available for after sales purchase. Replacement of repair or internal parts should only be done by a qualified service professional. Please contact your authorized service dealer or Customer Service at 866-384-8432.

