



**CORDLESS REEL MOWER
– TOOL ONLY
24V MAX* | 15-INCH**

OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

Model 24V-CRLM15-CT-RM

Form No. SJ-24V-CRLM15-CT-RM-880E-M-V1

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IMPORTANT! Safety Instructions

All Operators Must Read These Instructions Before Use

Always follow these safety guidelines. Failure to do so may result in serious bodily injury or death.

General Safety WARNINGS!

When using this cordless reel mower, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. These precautions include:

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

⚠️ WARNING! To reduce the risk of injury, inspect the grass collection bag frequently and replace with recommended replacement if there are signs of wear or deterioration.

Before using the reel mower, take the time to familiarize yourself with the controls, especially how to stop the reel mower in an emergency. The only individuals who should use the reel mower are those who have a thorough understanding of the instructions and who know how to operate the machine. Children should never be allowed access to the reel mower.

Retain this manual for future reference and reread it at the start of each mowing season.

1. **Avoid dangerous conditions** – Do not use the reel mower in the rain or when the grass is damp or wet.
2. **Keep children, bystanders, and pets away** – Always keep children and spectators a safe distance away from the reel mower during operation and as the machine cools.
3. **Dress properly** – Always wear personal safety gear (i.e. glasses, rubber gloves, protective footwear, and dust masks) and proper clothing when using the reel mower. Loose clothing, long hair, or jewelry may get caught in the moving parts. Wear a protective covering to contain long hair.
4. **Use the right appliance** – Do not use the reel mower for any applications other than those for which it was intended.
5. **Do not force the reel mower** – It will perform better with less likelihood of personal or mechanical injury if it is used at the rate for which it was designed.

6. **Do not overreach** – Keep proper footing and balance at all times.
7. **Stay alert** – Always stay alert and watch what you are doing. Use common sense. Do not operate the reel mower when you are tired or under the influence of alcohol or drugs. This reel mower is not designed to be used by people (including children) with limited physical, sensory or mental capacities. It should also not be used by those lacking the proper experience and/or knowledge unless they are supervised by a person who is responsible for their safety or they have received instructions from such a person on how to safely use the equipment.
8. **Prevent unintentional starting** – Ensure the switch is in the off-position before connecting to battery pack, picking up or carrying the appliance. Carrying the appliance with your finger on the switch or energizing appliance that have the switch on invites accidents.
9. **Remove the battery** – Disconnect the battery pack from the appliance before making any adjustments, changing accessories, or storing appliance. Such preventive safety measures reduce the risk of starting the appliance accidentally.
10. **Store idle reel mower indoors** – When not in use, the reel mower should be stored indoors in a dry, locked place out of the reach of children.
11. **Maintain the reel mower with care** – Keep cutting edges sharp and clean for best and safest performance.
Inspect the reel mower cord periodically and if damage is found have it repaired by an authorized service facility. Keep handles dry, clean, and free from oil and grease.

Electrical Safety

⚠️ WARNING! Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

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 appliances only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
3. When the 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 accidentally 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 appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
 6. Do not expose the battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 104°F (40.5°C) may cause explosion.
 7. Follow all charging instructions and do not charge the battery pack or appliance outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
 8. Do not modify or attempt to repair the appliance or the battery pack except as indicated in the instructions for use and care.
- Operate the machine only in daylight or in good artificial light.
 - Do not operate the machine when you are tired or under the influence of alcohol or drugs.
 - Never operate the reel mower in wet grass. Always be sure of your footing; walk, never run, with the reel mower.
 - If the machine should start to vibrate abnormally, stop the engine (motor) and immediately check the machine to ascertain the cause. Vibration is generally a signal of trouble.
 - Keep blades sharp.
 - Keep hands and feet away from the cutting area.
 - Always wear eye protection when operating the machine.
 - Objects struck by the reel mower blade can cause severe injuries. The mowing area should always be carefully examined and cleared of all objects prior to each mowing.
 - If the reel mower strikes a foreign object, follow these steps:
 - i) Stop the reel mower by releasing the ON/OFF switch levers.
 - ii) Remove the battery.
 - iii) Inspect for damage.
 - iv) Repair any damage before restarting and operating the reel mower.

IMPORTANT!

Safety Instructions for Walk-Behind Mowers

General Operation

- Read, understand, and follow all instructions on the machine and in the manual(s) before starting.
- Do not put hands or feet near or under the machine. Always stay clear of the discharge opening.
- Keep guards in place and in proper working order.
- Only responsible adults who are familiar with the instructions should be allowed to operate this machine.
- Clear the mowing area of foreign objects such as rocks, wire, toys, and other miscellaneous articles, which could be picked up and thrown by the blade. Stay behind the handle when the engine (motor) is running.
- Make sure that the mowing area is clear of bystanders before starting the machine. Stop the machine if anyone enters the area.
- Do not operate the machine while barefoot or while wearing sandals. Always wear substantial footwear.
- Always look down and behind before and while moving backward with the reel mower.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or other obstruction.
- Never leave a running machine unattended.
- Stop the engine (motor) and wait until the blade comes to a complete stop before cleaning the machine, removing the grass collection bag, or changing accessories.

Slope Operation

Slopes are major factors 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.

- Mow across the face of slopes; never mow slopes following an up and down traverse. Exercise extreme caution when changing direction on a slope.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. These may cause an unexpected slip or fall.
- Do not mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.
- 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.

- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Stay alert and turn the reel mower off if a child enters the area.

- Never let children operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

Service

- Stop the machine and disconnect the safety key and the battery before servicing, cleaning, or removing grass from the reel mower.
- Keep all nuts and bolts tight.
- Never tamper with safety devices. Regularly check to ensure these devices are in place and in proper working order.
- Keep the reel mower free from grass, leaves, or other debris buildup.
- Never make any adjustments or repairs with the engine (motor) running. Always remove the battery before adjusting, cleaning, or repairing.
- Check the grass bag components frequently and replace with manufacturer's recommended parts when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Maintain or replace safety and instruction labels, as necessary.
- If your power tool requires service, contact an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563). Only identical replacement parts should be utilized for repairs. This will ensure that the safety of the power tool is maintained.
- If the battery charger cable is damaged, it must be immediately replaced to avoid a hazard. Contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Battery & Charger Safety Instructions

NOTE: This unit is tool only. The battery and the charger are not included. They must be purchased separately.

Model 24V-CRLM15-CT-RM is compatible with the iON+ 24V System batteries and chargers. See page 18 for more information.

We pay a great deal of attention to the design of every battery pack to ensure that we supply you with batteries that are safe, durable and have a high energy density. The battery cells have a wide range of safety devices. Each individual cell is initially formatted and its electrical characteristic curves are recorded. This data is then used exclusively to be able to assemble the best possible battery packs.

Despite all the safety precautions, caution must always be exercised when handling batteries. The following points must be obeyed at all times to ensure safe use. Safe use can only be guaranteed if undamaged cells are used. Incorrect handling of the battery pack can cause cell damage.

IMPORTANT! Analyses confirm that incorrect use and poor care of high-performance batteries are the main factors responsible for personal and/or product damage.

⚠ WARNING! Use only approved replacement batteries; other batteries may damage the cordless reel mower and cause it to malfunction, which can lead to serious personal injury.

⚠ WARNING! Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.

Do not modify or attempt to repair the appliance or the battery pack except as indicated in the instructions for use and care.

Have your battery pack serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the battery pack is maintained.


⚠ CAUTION! To reduce the risk of injury, charge the iON+ 24V lithium-ion battery pack only in its designated iON+ 24V lithium-ion charger. Other types of chargers present risk of fire, personal injury and damage. Do not wire a battery pack to a power supply plug or car cigarette lighter. Such misuse will permanently disable or damage the battery pack.

- **Avoid dangerous environments** – Do not charge the battery pack in rain, snow or in damp or wet locations. Do not use the battery pack or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing the battery pack, which could lead to a fire.
- **Charge in a well-ventilated area** – Do not block the charger vents. Keep them clear to allow for proper ventilation. Do not allow smoking or open flames near a charging battery pack. Vented gases may explode.

NOTE: The safe temperature range for the battery is 41°F – 105°F (5°C – 40.5°C). Do not charge the battery outside in freezing weather; charge it at room temperature.

- **Maintain charger cord** – When unplugging the charger, pull the plug, not the cord, from the receptacle to reduce the risk of damage to the electrical plug and cord. Never carry the charger by its cord or yank it by the cord to disconnect it from the receptacle. Keep the cord away from heat, oil and sharp edges. Make sure the cord will not be stepped on, tripped over or subjected to damage or stress when the charger is in use. Do not use the charger with a damaged cord or plug. Replace a damaged charger immediately.

- **Do not use an extension cord unless it is absolutely necessary** – Using the wrong, damaged or improperly wired extension cord poses a risk of fire and electric shock. If an extension cord must be used, plug the charger into a properly wired 16 gauge or larger extension cord with the female plug matching the male plug on the charger. Make sure that the extension cord is in good electrical condition.
- **Use only recommended attachments** – Use of an attachment not recommended or sold by the battery charger or battery pack manufacturer may result in risk of fire, electric shock or personal injury.
- **Unplug charger when not in use** – Make sure to disconnect battery pack from unplugged charger.

 **WARNING!** To reduce the risk of electric shock, always unplug the charger before performing any cleaning or maintenance. Do not allow water to flow into the charger. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.

- **Do not burn or incinerate the battery pack** – The battery pack may explode, causing personal injury or damage. Toxic fumes and materials are created when battery pack is burned.
- **Do not crush, drop or damage battery pack** – Do not use the battery pack or charger if they have sustained a sharp blow, been dropped, run over or have been damaged in any way (i.e. pierced with a nail, hit with a hammer, stepped on, etc.).
- **Do not disassemble** – Incorrect reassembly may pose a serious risk of electric shock, fire or exposure to toxic battery chemicals. If the battery or charger are damaged, contact an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.
- **Battery chemicals cause serious burns** – Never let a damaged battery pack contact the skin, eyes or mouth. If a damaged battery pack leaks battery chemicals, use rubber or neoprene gloves to safely dispose of it. If skin is exposed to battery fluids, wash the affected area with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose of contaminated clothing.
- **Do not short circuit** – A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as paper clips, coins, keys, screws, nails and other metallic objects. A short-circuited battery pack poses a risk of fire and severe personal injury.
- **Store your battery pack and charger in a cool, dry place** – Do not store the battery pack or charger where temperatures may exceed 105°F (40.5°C), such as in direct sunlight or inside a vehicle or metal building during the summer.

Information about the battery

1. For optimum battery performance, avoid low discharge cycles by charging the battery pack frequently.
2. Store the battery pack in a cool place, ideally at 77°F (25°C) and charged to at least 40%.
3. Lithium-ion batteries are subject to a natural aging process. The battery pack must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements needed for the proper operation of your reel mower, and therefore pose a safety risk.
4. Do not throw battery pack into an open fire as this poses a risk of explosion.
5. Do not ignite the battery pack or expose it to fire.
6. Do not exhaustively discharge the battery. Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partially discharged batteries. Stop working as soon as the performance of the battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after they have been fully charged.
7. Protect the battery and the tool from overloads. Overloads will quickly result in overheating and cell damage inside the battery housing even if this overheating is not apparent externally.
8. Avoid damage and shocks. Immediately replace batteries that have been dropped from a height of more than one meter or those that have been exposed to violent shocks, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In such instances, please read the waste disposal information for proper battery disposal.
9. If the battery pack suffers overloading and overheating, the integrated protective cutoff will switch off the equipment for safety reasons.
IMPORTANT! Do not press the ON/OFF switch any more if the protective cut-off has been activated. This may damage to the battery pack.
10. Use only original battery packs. The use of other batteries poses a fire risk and may result in injuries or an explosion.

Information about the charger and the charging process
















1. Please check the data marked on the rating plate of the battery charger. Be sure to connect the battery charger to a power supply with the voltage marked on the rating plate. Never connect it to a different mains voltage.
2. Protect the battery charger and its cord from damage. Keep the charger and its cord away from heat, oil and sharp edges. Have damaged cords repaired without delay by a qualified technician at an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).
3. Electrical plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded appliances. Unmodified plugs and matching outlets will reduce the risk of electric shock.
4. Keep the battery charger, battery pack and the cordless tool out of the reach of children.
5. During periods of heavy use, the battery pack will become warm. Allow the battery pack to cool to room temperature before connecting it to the charger to recharge.
6. Do not overcharge the battery. Do not exceed the maximum charging times. These charging times only apply to discharged battery. Frequent insertion of a charged or partially charged battery pack will result in overcharging and cell damage. Do not leave the battery in the charger for days on end.
7. Never use or charge the battery if you suspect that it has been more than 12 months since the last time it was charged. There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).
8. Charging the battery at a temperature below 41°F (5°C) will cause chemical damage to the cells and may cause a fire.
9. Do not use battery that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.
10. Do not use batteries that have suffered curvature or deformation during the charging process or those that exhibit other atypical symptoms (gassing, hissing, cracking, etc.).
11. Never fully discharge the battery pack (maximum recommended depth of discharge is 80%). A complete discharge of the battery pack will lead to premature aging of the battery cells.

Protection from environmental influences

1. Wear suitable work clothes. Wear safety goggles.
2. Protect your cordless tool and the battery charger from moisture and rain. Moisture and rain can cause dangerous cell damage.
3. Do not use the cordless tool or the battery charger near vapors and flammable liquids.
4. Use the battery charger and cordless tools only in dry conditions and at an ambient temperature of 41°F – 105°F (5°C – 40.5°C).
5. Do not keep the battery charger in places where the temperature is liable to reach over 105°F (40.5°C). In particular, do not leave the battery charger in a car that is parked in the sunshine.
6. Protect the battery from overheating. Overloads, overcharging and exposure to direct sunlight will result in overheating and cell damage. Never charge or work with battery that have been overheated – replace it immediately, if possible.
7. Store the charger and your cordless tool only in dry locations with an ambient temperature of 41°F – 105°F (5°C – 40.5°C). Store your lithium-ion battery pack in a cool, dry place at a temperature of 77°F (25°C). Protect the battery pack, charger and cordless tool from humidity and direct sunlight. Only place fully charged battery in storage (charged to at least 40%).
8. Prevent the lithium-ion battery pack from freezing. Battery pack that was stored below 32°F (0°C) for more than 60 minutes must be discarded.
9. When handling batteries, be wary of electrostatic charge. Electrostatic discharges can damage the electronic protection system and the battery cells. Avoid electrostatic charging and never touch the battery poles.

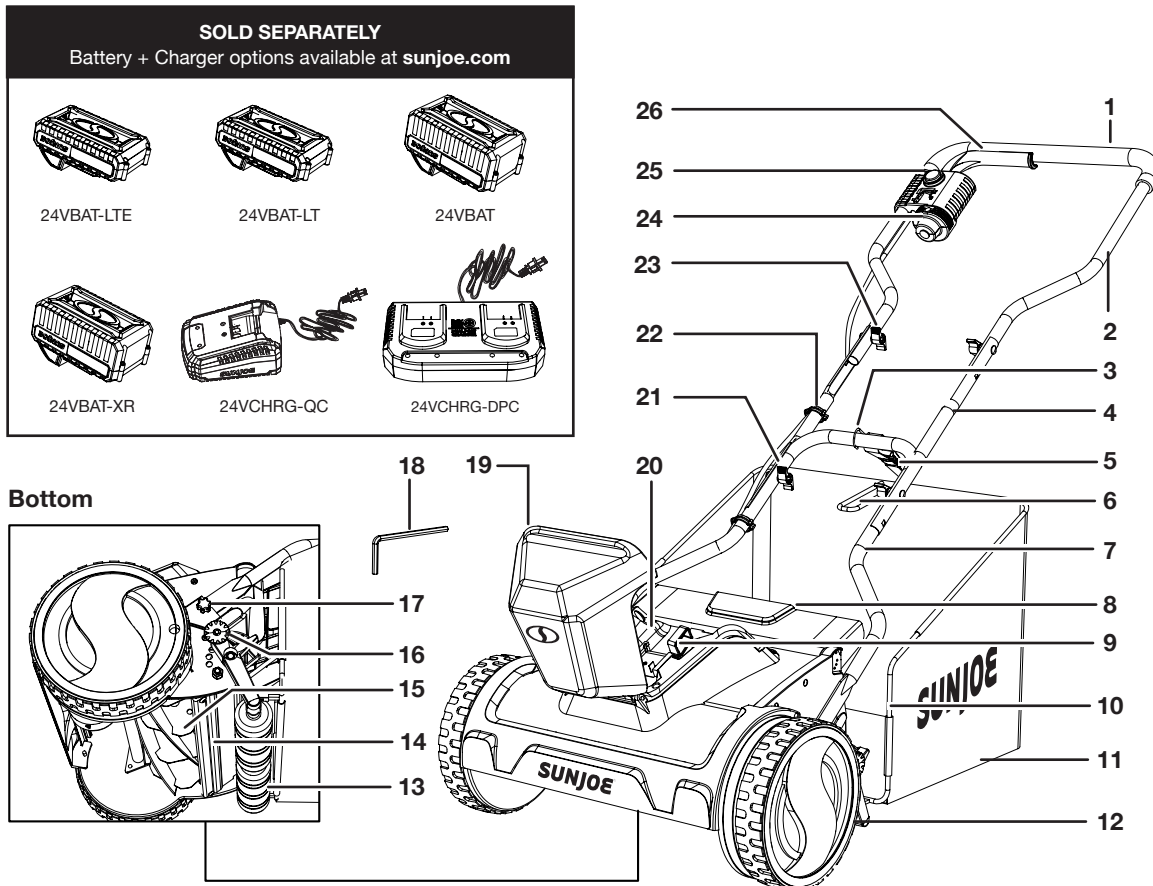
Safety Symbols

The following table depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbols	Descriptions	Symbols	Descriptions
	DANGER! Rotating blades. Keep hands and feet away.		Keep bystanders and children a safe distance away.
	Safety Alert. Caution. To reduce the risk of injury, user must read instruction manual.		Wear eye and hearing protection. For protection against injury, wear ear defenders and safety goggles.
	WARNING! Do not expose or operate the unit in rain or wet conditions. Keep dry.		Wear protective gloves and non-slip footwear when using the machine and handling debris.
	Slip on slope hazard – Use extra caution when mowing on slopes to prevent slip and fall accidents.		Severing of toes or fingers by rotary mower blade.
	Thrown objects and rotating blade can cause severe injury.		Keep bystanders a safe distance away from the work area.
	Blades continue to rotate after machine is switched off.		WARNING! Always turn the machine OFF and remove the safety key before conducting inspection, cleaning and maintenance.
	Rotating blades, keep hands and feet away from the opening while the machine is running.		Look behind when backing up with the mower.
	Indoor use only. Only use battery charger indoors.		

Know Your Cordless Reel Lawn Mower

Read the owner's manual and safety instructions carefully before operating the reel mower. Compare the illustration below to the reel mower in order to become familiar with the location of the various controls and adjustments. Save this manual for future reference.



- | | | |
|--------------------------------|--------------------------------------|---------------------------------------|
| 1. Soft grip | 10. Grass collection bag support rod | 18. Hex key wrench |
| 2. Upper handle frame | 11. Grass collection bag | 19. Battery compartment cover |
| 3. Strap hook | 12. Wheel (2) | 20. Battery compartment |
| 4. Middle handle bars (2) | 13. Roller bar | 21. Lower handle knob + bolt (2 sets) |
| 5. Locking strap | 14. Cutting bar | 22. Cable clip (2) |
| 6. Grass collection bag handle | 15. Steel cutting blades | 23. Upper handle knob + bolt (2 sets) |
| 7. Lower handle frame | 16. Height adjustment knobs (2) | 24. Switch box |
| 8. Ejector flap | 17. Lower handle knobs (2) | 25. Safety lock button |
| 9. Safety key | | 26. On/Off switch lever |

Technical Data

Motor	360 W
Battery Voltage Max*	24V D.C.
Battery Capacity	See page 18 for battery options and specifications
Battery Runtime Max	See page 18 for battery options and specifications
No Load Speed	1000 rpm
Rotor	5 steel blades
Cutting Width	15 in. (38 cm)
4-Position Cutting Heights	0.6 in. 1.0 in. 1.5 in. 2.0 in. (15 mm 28 mm 39 mm 50 mm)
Grass Collection Bag Capacity	11.9 gal (45 L)
Net Weight	27.6 lbs (12.5 kg)

**Initial no-load voltage, when fully charged, peaks at 24 volts; nominal voltage under typical load is 21.6 volts.*

Unpacking

Carton Contents

- Cordless reel mower body connected with upper handle frame
 - Middle handle bars (2)
 - Lower handle frame
 - Grass collection bag
 - Grass collection bag support rod
 - Handle knob + bolt (4 sets)
 - Lower handle knob (2)
 - Cable clip (2)
 - Safety key
 - Hex key wrench
 - Manual and registration card
1. Carefully remove the reel mower and check to see that all of the above items are supplied.
 2. Inspect the product carefully to make sure no breakage or damage occurred during shipping. If you find damaged or missing parts, DO NOT return the unit to the store. Please call the Snow Joe® + Sun Joe® customer service department at 1-866-SNOWJOE (1-866-766-9563).

NOTE: Do not discard the shipping carton and packaging material until you are ready to use your new cordless reel mower. The packaging is made of recyclable materials. Properly dispose of these materials in accordance with local regulations.

IMPORTANT! The equipment and packaging material are not toys. Do not let children play with plastic bags, foils, or small parts. These items can be swallowed and pose a suffocation risk!

Battery Pack Operation

The equipment is powered by a lithium-ion battery. The battery pack is completely sealed and maintenance free.

TOOL ONLY





BATTERY + CHARGER SOLD SEPARATELY

In order to operate this cordless reel mower you will need a iON+ 24V System battery and charger. See page 18 for battery and charger options and specifications, or for more information visit sunjoe.com.

Battery Charge Level Indicator

The battery pack is equipped with a push button for checking the charge level. Simply press the push button to read off the battery charge level from the LEDs of the battery indicator:

- All 3 level monitoring LEDs are lit: Battery charge level is high.
- 2 level monitoring LEDs are lit: Battery charge level is decreasing. Stop work as soon as possible.
- 1 level monitoring LED is lit: Battery is flat. Stop work IMMEDIATELY and charge the battery. Otherwise the battery's service life will be greatly shortened.

Lights	Light Indicators
	Charge level button
	The battery is at 30% capacity and requires charging
	The battery is at 60% capacity and requires charging soon
	The battery is at full capacity

NOTE: If the charge level button does not appear to be working, insert the charger and charge as needed.

NOTE: Immediately after using the battery pack, the charge level button may display a lower charge than it will if checked a few minutes later. The battery cells “recover” some of their charge after resting.

Charger Operation

⚠ WARNING! Charge only Sun Joe® 24V lithium-ion battery pack with its compatible Sun Joe® 24V lithium-ion charger. Other types of batteries may cause personal injury and damage.

To reduce the risk of electric shock, do not allow water to flow into the charger's AC/DC plug.

TOOL ONLY
BATTERY + CHARGER SOLD SEPARATELY

In order to operate this cordless reel mower you will need a iON+ 24V System battery and charger. See page 18 for battery and charger options and specifications, or for more information visit sunjoe.com.

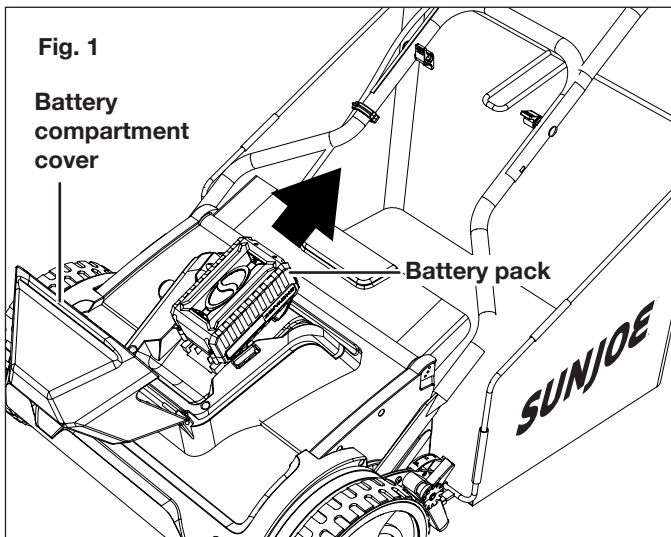
When to Charge the iON+ 24V Lithium-ion Battery

NOTE: The iON+ 24V lithium-ion battery pack does not develop a "memory" when charged after only a partial discharge. Therefore, it is not necessary to run down the battery pack before inserting the charger plug.

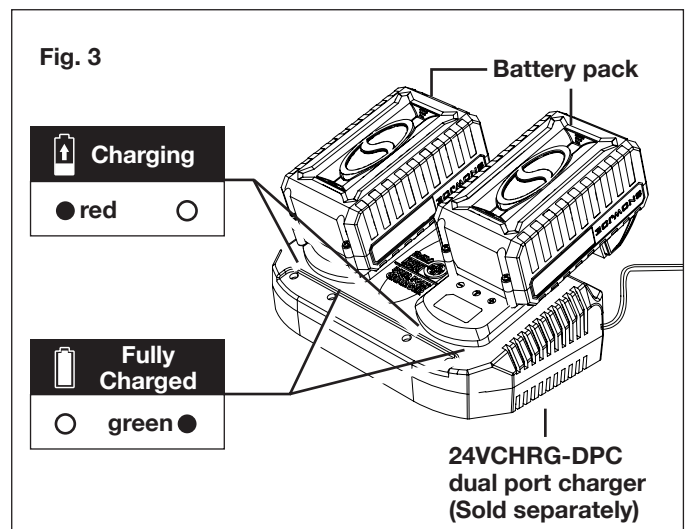
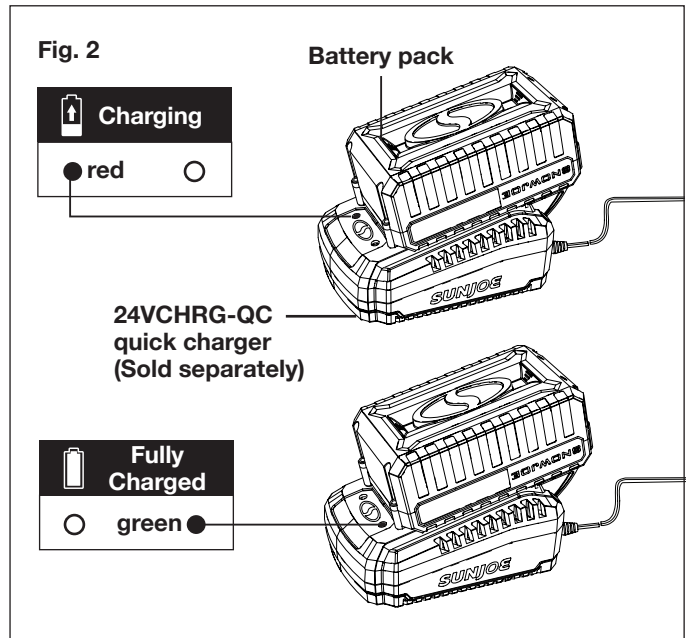
- Use the battery indicator lights to determine when to charge your iON+ 24V lithium-ion battery pack.
- You can "top-off" your battery pack's charge before starting a big job or after a long day of use.

Charging the Battery

1. Open the battery compartment cover, and push the push lock buttons on the battery to pull the battery pack out from the battery compartment (Fig. 1).



2. Depending on your Snow Joe® + Sun Joe® charger model, how to recharge your lithium-ion battery will vary. You may either insert your 24-volt battery into the 24VCHRG-QC Quick Charger (sold separately) or the 24VCHRG-DPC Dual Port Charger (sold separately) (Figs. 2 – 3).



3. The battery indicator LEDs will illuminate one by one during the charging process. Unplug the charger immediately when the 3 LEDs are all illuminated.
4. The 24VCHRG-QC Quick Charger (sold separately) and the 24VCHRG-DPC Dual Port Charger (sold separately) are also equipped with additional charging indicating lights which will indicate the charging status (Figs. 2 – 3).

⚠ CAUTION! FIRE HAZARD. When disconnecting the charger from the battery, be sure to unplug the charger from the outlet first, then disconnect the charger from the battery.

⚠ WARNING! This charger does not automatically turn off when the battery is fully charged. Please take care not to leave the battery plugged into the charger. Switch off or unplug the charger at the mains when charging is complete.

5. Timely recharging of the battery will help prolong the battery's life. You must recharge the battery pack when you notice a drop in the equipment's power.

IMPORTANT! Never allow the battery pack to become fully discharged as this will cause irreversible damage to the battery.

6. When charging is complete, remove the battery from the charger by pulling the push lock buttons and sliding the battery backward to unlock it from the charger.

Assembly

⚠ WARNING! Do not insert the battery and the safety key until assembly is complete. Failure to comply could result in accidental starting and serious personal injury.

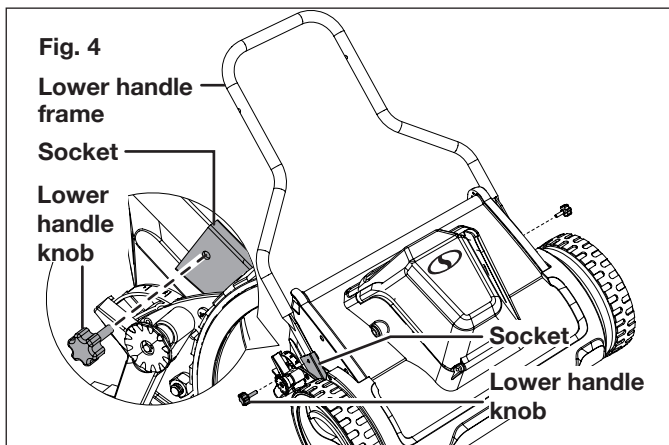
⚠ WARNING! Before performing any maintenance, make sure the battery and the safety key are removed from the unit. Failure to heed this warning could result in serious personal injury.

⚠ WARNING! The product must be fully assembled before operation. Do not use a product that is only partially assembled or assembled with damaged parts.

NOTE: Before using the reel mower, follow these instructions to assemble the appliance.

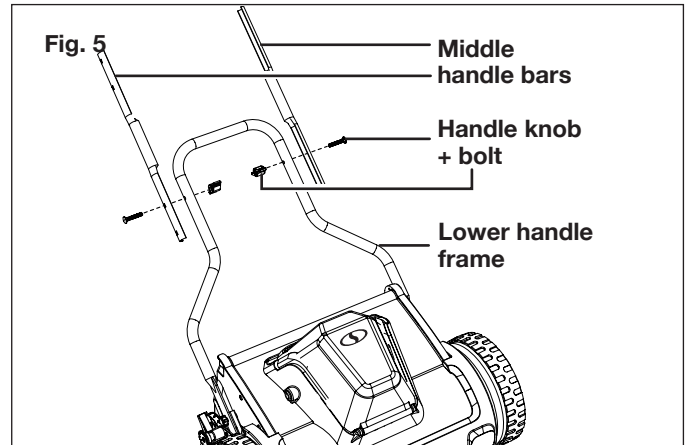
Handle Assembly

1. Insert the ends of the lower handle frame into the sockets on both side of the mower base. Lock with the lower handle knobs provided (Fig. 4).

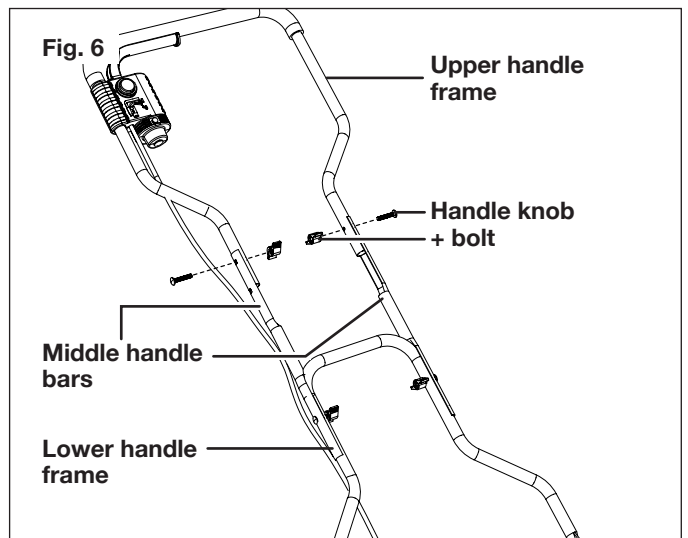


2. Fit the middle handle bars on both sides of the lower handle frame, aligning the holes. Secure with two sets of handle knobs and bolts (Fig. 5).

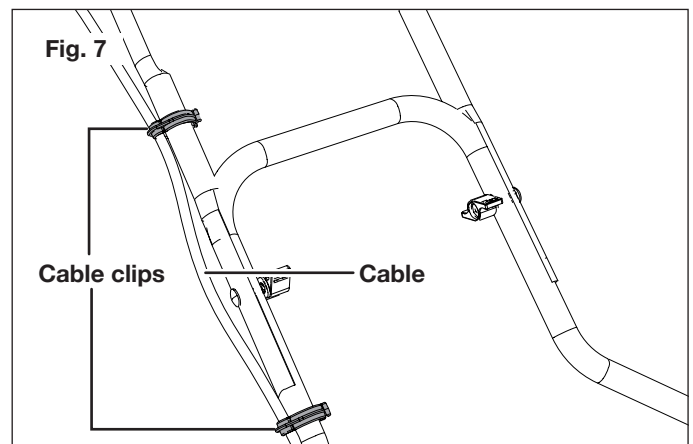
NOTE: Each middle handle bar has 2 holes on the top and the bottom. Adjust the handle assembly to the optimal position by aligning with the hole at the desired height.



3. Fit the upper handle frame on both the middle handle bars, as shown, aligning the holes. Secure with the remaining two sets of handle knob and bolt (Fig. 6).



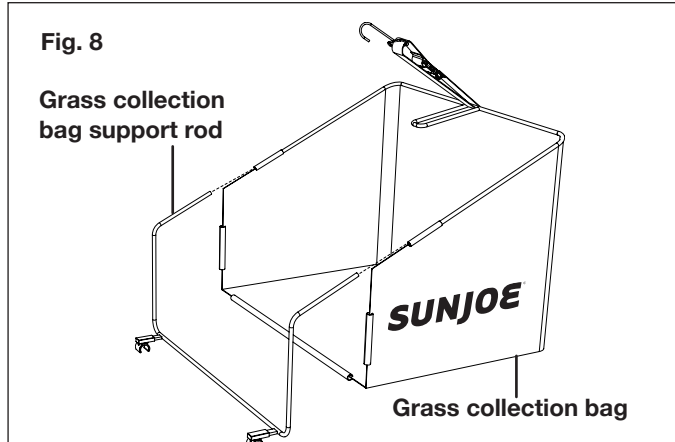
4. Secure the cable with the two cable clips, as shown (Fig. 7)



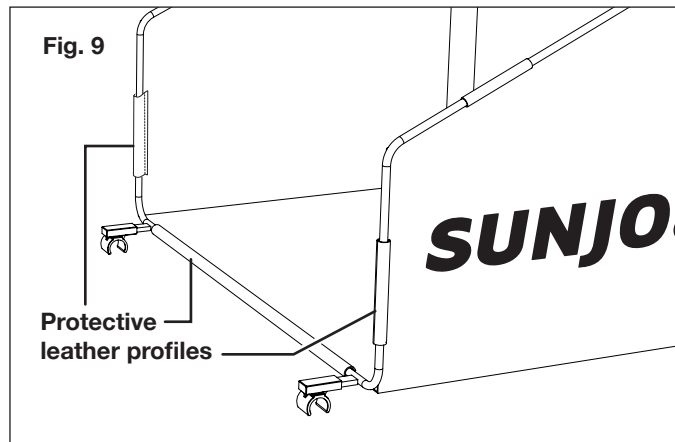
Grass Collection Bag Assembly + Fitting

The grass collecting bag prevents grass clippings being thrown across your lawn as you mow.

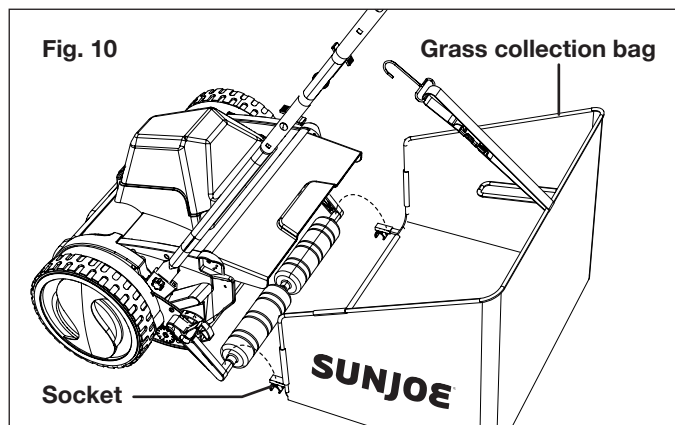
1. Fit the grass collection bag support rod into the tube of the grass collection bag (Fig. 8)



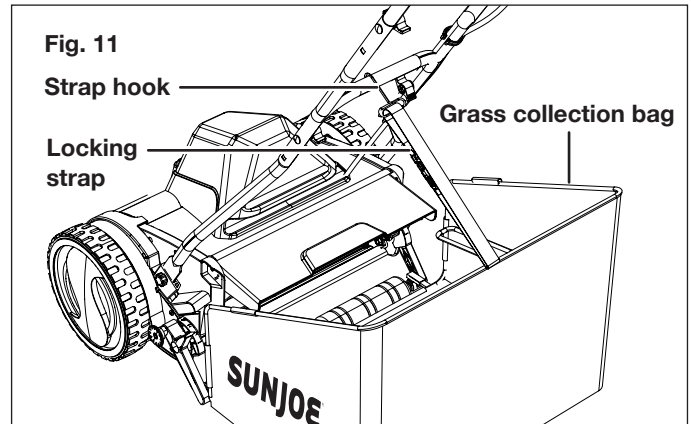
2. Clip the protective leather profiles onto the support rod to secure the assembly (Fig. 9).



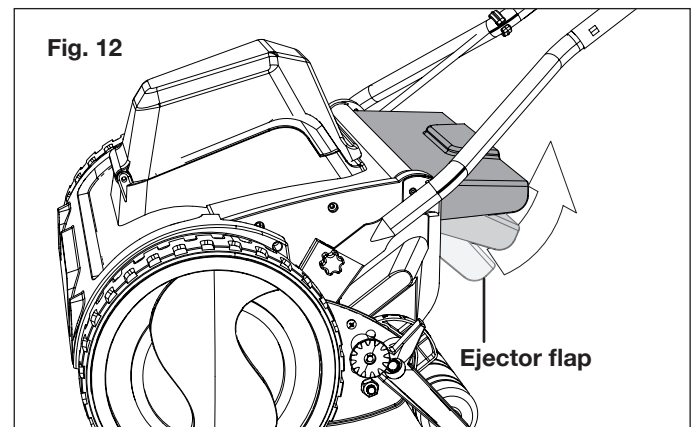
3. Lift the ejector flap to the highest position, and assemble the grass collection bag onto the mower by hooking the sockets to both ends of the roller bar shaft (Fig. 10).



4. Hook the strap hook of the grass collection bag on the center bar on the lower handle frame (Fig. 11). Adjust the strap to an appropriate height so that the grass collection bag does not rub against the ground while mowing or transporting the unit.



5. The mower can be used without the grass collection bag. When the grass collection bag is not attached, adjust the ejector flap to a suitable position to shield flying grass clippings (Fig. 12).



Operation

This reel mower is intended for private residential use to cut grass in small lawns and gardens. This reel mower is not intended to cut grass in public parks, playing fields, farms, or forests. Do not use this reel mower for any application other than that for which it is intended.

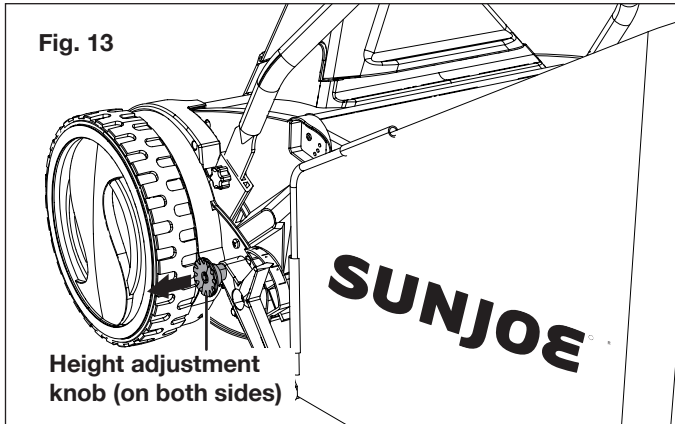
Adjusting the Cutting Height

This cordless reel mower is equipped with a 4-position height adjustment system to tailor grass cutting heights from 0.6 inch to 2.0 inch. To change the cutting height of the grass, follow the instructions below.

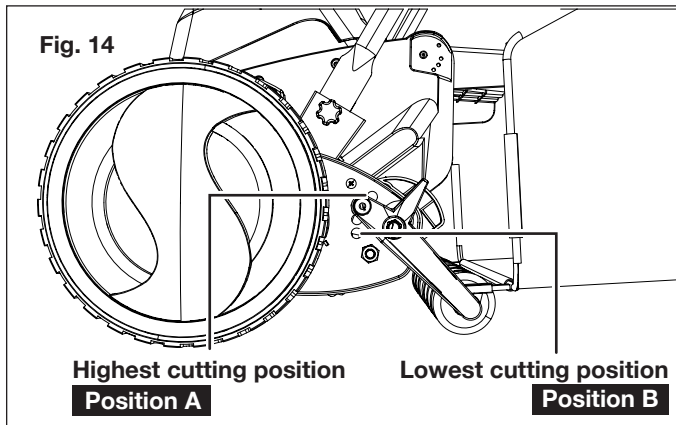
⚠️ WARNING! Before making these adjustments, remove the battery and the safety key from the lawn mower and wait until the rotating blades have come to a complete standstill.

ALWAYS FOLLOW ALL SAFETY PRECAUTIONS AND RECOMMENDATIONS LISTED PREVIOUSLY IN THIS MANUAL.

1. Power off the reel mower and remove the battery and the safety key.
2. To adjust the cutting height, pull out the height adjustment knobs on both sides of the reel mower frame and insert the knobs to the desired setting (Fig. 13).



3. To adjust the reel to the highest cutting position, place the adjustment knobs through the top hole (position A) located on the sides of the reel mower frame. To adjust the reel to the lowest cutting position, place the adjustment knobs through the bottom hole (position B) located on the sides of the frame (Fig. 14).

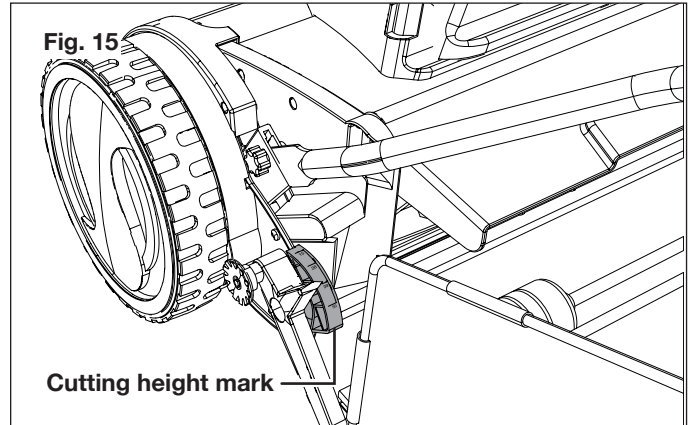


4. Other cutting heights are achieved by moving the adjustment knobs to the settings between the highest and lowest positions. Refer to the mark beside the height adjustment knobs when adjusting the cutting height (Fig. 15).

4-Position Height Adjustment:

- (1) Low: 0.6 in. (15 mm)
- (2) Medium: 1.0 in. (28 mm)
- (3) Medium: 1.5 in. (39 mm)
- (4) High: 2.0 in. (50 mm)

The cutting height tolerance is +/- 0.12 in. (3 mm).

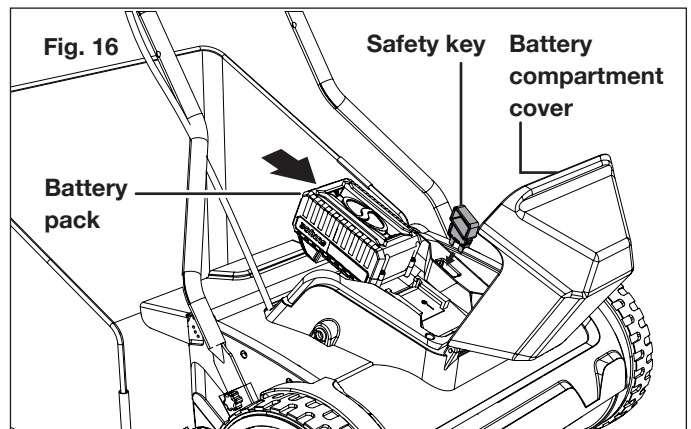


Starting + Stopping

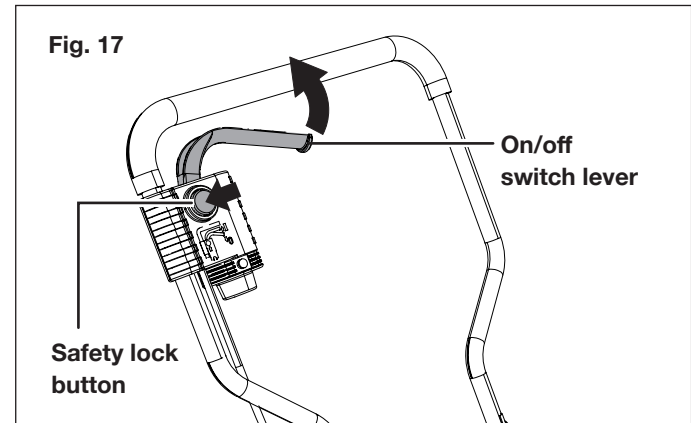
⚠ WARNING! Before switching on the reel mower, make sure that it is not in contact with any foreign objects. Keep your hands and feet a safe distance away from the rotating mower blades and the ejector opening. Failure to comply with these warnings can result in severe personal injury.

IMPORTANT: Do not start the reel mower in tall grass.

1. Make sure the unit's On/Off switch lever is not squeezed on. Insert the battery and the safety key in their slots (Fig. 16). Close the battery compartment cover.



2. To start the machine, press and hold the safety lock button, then pull the On/Off switch lever toward you (Fig. 17). Once the machine powers on, release the safety lock button and proceed with operation.



3. To stop the mower, release the On/Off switch lever.

⚠️ WARNING! The mower blade will continue to rotate for a brief period after the unit has been switched off. Do not tilt or carry the unit while the motor is still running and do not touch the blade while it is still rotating. Failure to comply could result in severe personal injury.

Mowing Tips

⚠️ WARNING! Inspect the area prior to mowing and remove all the stones, sticks, wires and other foreign objects that could be picked up and thrown by the rotating blade. Failure to comply not only will damage the mower blade, but can also lead to serious personal injury.

- Be sure to check the blades periodically for signs of wear and replace them at least once per year, as described in the maintenance section.
NOTE: Sharp blades will greatly enhance the performance of the reel mower, especially when cutting tall grass.
- When cutting thick grass, reduce your walking speed in order to allow for a more effective cut and a proper discharge of the clippings. For a healthy lawn, always cut off one-third or less from the total length of the grass. The average lawn should be approximately 1.5 in. to 2 in. (3.8 cm to 5 cm) long during cool months, and more than 2 in. (5 cm) long during hot months. If there is growth, the lawn should be cut in the fall.
- The lawn will look better if it is always cut to the same height and in alternate directions.
- When crossing any gravelled surfaces, release the On/Off switch lever to turn off the mower. The stones can be picked up and thrown by the rotating blade.
- Set the mower to the highest cutting height when mowing on uneven ground or in tall weeds.

⚠️ WARNING! If you strike a foreign object, stop the motor and remove the battery. Thoroughly inspect the mower and repair any damage before resuming work.

- Switch off the motor before emptying the grass collection bag. Always ensure that a safe distance (provided by the length of the long handles) is maintained between the user and the mower housing. Be especially careful when mowing and changing direction on slopes and inclines.
- Maintain a solid footing and wear sturdy, non-slip footwear and long trousers. Always mow across an incline (not up and down).
- Use special caution when backing up and pulling the reel mower towards you as such maneuvering of the machine poses a tripping hazard.
- For effective mulching, do not cut wet grass; it tends to stick to the underside of the deck, preventing the proper mulching of grass clippings. The best time to mow grass is in the late afternoon, when the grass is dry and the newly cut area will not be exposed to direct sunlight.
- For the best mulching performance, set the cutting height to remove approximately one third of the grass length,

ideally no more than 1.5 in. at one time. If the grass is overgrown, it may be necessary to increase the cut height to make it easier to mow and to prevent overloading the motor. Slow your cutting pace in tall or thick grass conditions. For mulching extremely thick or tall grass, it is advisable to first cut at a high cut-height setting, and then re-cut to the final cut height. Otherwise, make narrower cuts and mow slowly. **ALWAYS MAKE SURE THAT THE BLADE IS SHARP.**

Maintenance

⚠️ WARNING! Before cleaning, repairing, or inspecting the reel mower, stop the machine, disconnect the safety key and the battery. Verify that all moving parts have come to a complete stop.

General

- Always keep the reel mower clean and free of grass, dirt, or other debris.
- Keep the handles dry, clean, and free of oil and grease.
- After each cutting session, remove accumulated grass clippings and debris using either a dry cloth or hand brush. You may also clean the equipment with a damp cloth. Do not use cleaning agents or harsh solvents as they may damage the equipment's plastic components. Make sure that no water penetrates the equipment's interior as intake of water can destroy the switch mechanism and the electric motor.
- Do not clean the reel mower with running water, particularly with high-pressure water.
- Check all nuts, bolts, and screws for proper tightness before each use.
- Frequently inspect the grass collection bag for signs of wear and replace immediately with a genuine Snow Joe® + Sun Joe® part if damage is found.
- Replace excessively worn or damaged parts immediately.

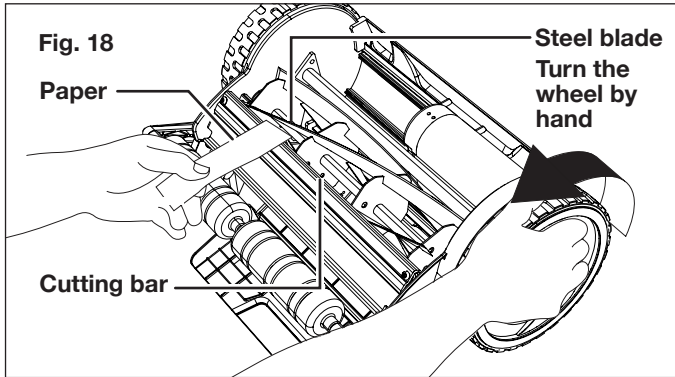
Lubrication

All of the bearings in this product are lubricated with a sufficient amount of high grade lubricants for the life of the unit under normal operation conditions. Therefore, no further lubrication of the bearings is needed.

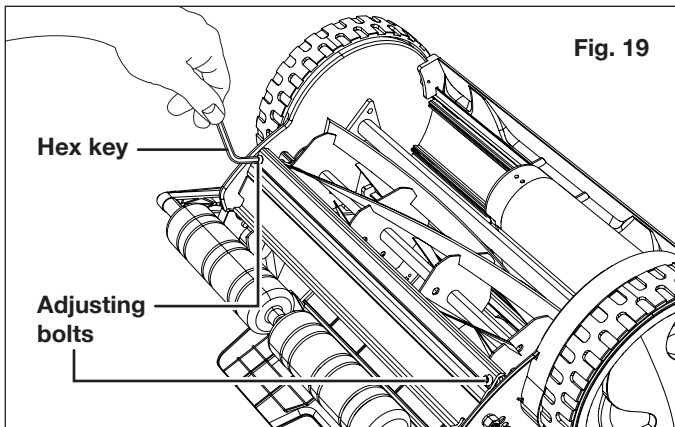
Ensuring a clean cut

⚠️ WARNING! The steel blades are extremely sharp. To avoid injury, do not touch the blades while making adjustments. Misalignment of the blades can occur, which often results from blades that are either too loose or too tight. This can cause an uneven cut or difficulty pushing the mower.

1. Place the mower on a flat surface. Remove the handles and the grass collection bag. Turn the mower upside down to expose the blades and the cutting bar.
2. Insert a piece of paper between the steel blades and the cutting bar, then slowly turn the wheel by hand (Fig. 18).



3. All the blades should slice the paper evenly along the entire length of the cutting bar while the wheel is turned smoothly. Repeat this testing on the other side of the mower.
4. If the mower cuts the paper intermittently, use the hex key wrench provided to tighten the adjustment bolt closest to where the intermittent cut was observed. Tighten the bolt on the appropriate end of the cutting bar by turning it clockwise approximately 1/8th of a turn until the steel blade contacts the cutting bar (Fig. 19).



5. If it becomes too difficult to move the wheel by hand while adjusting the reel blades, back off the adjustment bolt slightly by turning it counterclockwise. Test again with a new piece of paper to verify proper cutting action.
6. Make the same adjustment at the other end of the cutting bar.

⚠️ WARNING! Both adjustment bolts should have tension on final adjustment. Do not overtighten the adjustment bolts as this could damage the blades.

NOTE: If you have any questions, please call the Snow Joe® + Sun Joe® customer service department at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Cleaning and Storage

1. Clean the exterior of the machine thoroughly using a soft brush and cloth before storing. Do not use water, solvents, or polishes.

2. Turn the mower on its side to clean the blade area.

⚠️ WARNING! Do not place your hands inside or near the cutting area. If grass cuttings are compacted in the blade area, remove them using a wood or plastic cleaning tool appropriate for blade cleaning.

3. Store the mower in a dry place. Do not place other objects on top of the mower during storage.

Maintenance Tips

Reel mowers are relatively low maintenance. For consistent cutting, follow the below instructions:

- Always keep the cutting blades properly adjusted. Refer to the instruction manual for further directions.
- Regularly clean and lubricate cutting edges with light spray oil.

IMPORTANT! Reel mowers have difficulty cutting tall weeds, such as dandelions, and will often bend, rather than cut, such weeds. Cut often to prevent this.

Disposal

Recycling the tool

- Do not dispose of electrical appliances as unsorted municipal waste. Use separate collection facilities.
- Contact your local government agency for information regarding the collection systems available.
- If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
- When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least free of charge.

Recycling + Disposal

The product comes in a package that protects it against damage during shipping. Keep the package until you are sure that all parts have been delivered and the product is functioning properly. Recycle the package afterwards or keep it for long-term storage.



WEEE symbol. Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or local store for recycling regulations.

Battery Caution + Disposal

Always dispose of your battery pack according to federal, state, and local regulations. Contact a recycling agency in your area for recycling locations.

⚠ CAUTION! Even discharged battery packs contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.

⚠ WARNING! To reduce the risk of injury or explosion, never burn or incinerate a battery pack even if it is damaged, dead or completely discharged. When burned, toxic fumes and materials are emitted into the surrounding atmosphere.

1. Batteries vary according to device. Consult your manual for specific information.
2. Install only new batteries of the same type in your product (where applicable).
3. Failure to insert the battery in the correct polarity, as indicated in the battery compartment or manual, may shorten the life of the batteries or cause batteries to leak.
4. Do not mix old and new batteries.
5. Do not mix Alkaline, Standard (Carbon-Zinc) or Rechargeable (Nickel Cadmium, Nickel Metal Hydride, or Lithium-Ion) batteries.
6. Do not dispose of batteries in fire.
7. Batteries should be recycled or disposed of as per state and local guidelines.

Service + Support

If your Sun Joe® 24V-CRLM15-CT-RM cordless reel mower requires service or maintenance, please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Model + Serial Numbers

When contacting the company or reordering parts, you will need to provide the model and serial numbers of your product. These are found on the decal affixed to the housing or handle of your lawn mower. Copy these numbers into the space provided below.

<p>Record the following numbers from the housing or handle of your new product:</p> <p>Model #: 2 4 V - C R L M 1 5 - C T - R M </p> <p>Serial #: </p>
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Troubleshooting

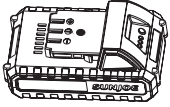
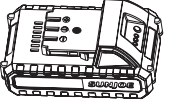



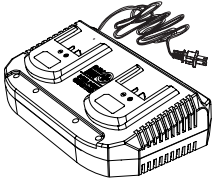
- Remove the battery and the safety key before carrying out maintenance on the machine or when checking that its parts are in proper working order.
- To avoid unnecessary hassles, consult the following table before contacting a qualified repair person with any mechanical issues.

Fault	Possible Cause	Remedy
Mower fails to start	<ul style="list-style-type: none"> a) The safety key is not inserted b) The battery is flat c) The battery is not inserted securely d) The motor/blade control is disengaged e) The mower deck is clogged with grass or debris f) The grass is too tall 	<ul style="list-style-type: none"> a) Insert the safety key b) Charge the battery c) Attach the battery pack to the mower; press it until you hear a click. d) Press safety lock button first ,then the On/Off switch lever e) Clean the mower deck. Make sure the blade is free to move f) Set the mower to a high cutting height. Lift the front wheels slightly by pressing down on the handle bar.
Mower stops while mowing	<ul style="list-style-type: none"> a) The battery is flat b) The grass is too tall c) The mower deck is clogged with grass or debris d) The battery or the mower circuitry is too hot 	<ul style="list-style-type: none"> a) Charge the battery b) Reset the cutting height c) Clean the mower deck. Make sure the blade is free to move d) Cool down the battery and the machine
The mower cannot cut grass evenly	<ul style="list-style-type: none"> a) The lawn is rough or uneven b) The blade is not sharp enough 	<ul style="list-style-type: none"> a) Adjust cutting height b) Sharpen or replace the blade
The mower is difficult to push	<ul style="list-style-type: none"> a) The grass is too tall to cut b) The blade or the mower rear is dragged by heavy grass c) Too much tolerance between the steel blades and the cylinder 	<ul style="list-style-type: none"> a) Adjust cutting height higher b) Tighten the adjusting bolts
The mower is vibrating at high speed	<ul style="list-style-type: none"> a) The motor shaft is bent b) The blade is unbalanced c) The adjusting bolts are loose 	<ul style="list-style-type: none"> a) Stop the motor, remove the battery, and inspect the damage. Contact with a qualified repair person. b) Balance the blade by grinding each cutting edge equally or replace a new one c) Tighten the adjusting bolts

Only a company specialist may be able to correct faults that cannot be rectified with the aid of this table. Please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

Optional Accessories

⚠️ WARNING! ALWAYS use only authorized Snow Joe® + Sun Joe® replacement parts and accessories. NEVER use replacement parts or accessories that are not intended for use with this cordless reel mower. Contact Snow Joe® + Sun Joe® if you are unsure whether it is safe to use a particular replacement part or accessory with your cordless reel mower. The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

Accessories	Item	Model
	iON+ 24V 2.0 Ah Lithium-Ion Battery <i>Battery Runtime Max: 25 min (cuts up to 2,454 sq. ft of grass)</i>	24VBAT-LTE
	iON+ 24V 2.5 Ah Lithium-Ion Battery <i>Battery Runtime Max: 31 min (cuts up to 3,068 sq. ft of grass)</i>	24VBAT-LT
	iON+ 24V 4.0 Ah Lithium-Ion Battery <i>Battery Runtime Max: 50 min (cuts up to 4,910 sq. ft of grass)</i>	24VBAT
	iON+ 24V 5.0 Ah Lithium-Ion Battery <i>Battery Runtime Max: 62 min (cuts up to 6,135 sq. ft of grass)</i>	24VBAT-XR
	iON+ 24V lithium-ion Battery Quick Charger	24VCHRG-QC
	iON+ 24V lithium-ion Dual-port Battery Charger	24VCHRG-DPC

NOTE: Accessories are subject to change without any obligation on the part of Snow Joe® + Sun Joe® to provide notice of such changes. Accessories can be ordered online at sunjoe.com or via phone by contacting the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).



SNOW JOE® + SUN JOE® REFURBISHED GOODS WARRANTY

GENERAL CONDITIONS:

Snow Joe® + Sun Joe® operating under Snow Joe®, LLC warrants this refurbished product to the original purchaser for 90 days against defects in material or workmanship when used for normal residential purposes. If a replacement part or product is needed, it will be sent free of charge to the original purchaser except as noted below.

The duration of this warranty applies only if the product is put to personal use around the household. It is the owner's responsibility to correctly perform all maintenance and minor adjustments explained in the owner's manual.

HOW TO OBTAIN YOUR REPLACEMENT PART OR PRODUCT:

To obtain a replacement part or product, please visit snowjoe.com/help or email us at help@snowjoe.com for instructions. Please be sure to register your unit beforehand to speed up this process. Certain products may require a serial number, typically found on the decal affixed to the housing or guard of your product. All products require a valid proof of purchase.

EXCLUSIONS:

- Wearing parts like belts, augers, chains and tines are not covered under this warranty. Wearing parts can be purchased at snowjoe.com or by calling 1-866-SNOWJOE (1-866-766-9563).
- Batteries are covered in full for 90-days from the date of purchase.

Snow Joe® + Sun Joe® may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Snow Joe® + Sun Joe® to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

This warranty is intended to cover product defects only. Snow Joe®, LLC is not liable for indirect, incidental or consequential damages in connection with the use or misuse of the Snow Joe® + Sun Joe® products covered by this warranty. This warranty does not cover any cost or expense incurred by the purchaser in providing substitute equipment or service during reasonable periods of malfunction or non-use of this product while waiting for a replacement part or unit under this warranty. Some states do not allow exclusions of incidental or consequential damages so the above exclusions may not apply in all states. This warranty may give you specific legal rights in your state.

HOW TO REACH US:

We're here to help Monday through Friday from 9AM to 7PM EST and Saturday and Sunday 9AM to 4PM. You can reach us at 1-866-SNOWJOE (1 866-766-9563), online at snowjoe.com, via email at help@snowjoe.com or tweet us @snowjoe.

EXPORTS:

Customers who have purchased Snow Joe® + Sun Joe® products exported from the United States and Canada should contact their Snow Joe® + Sun Joe® distributor (dealer) to obtain information applicable to your country, province or state. If for any reason, you are not satisfied with the distributor's service, or if you have difficulty obtaining warranty information, contact your Snow Joe® + Sun Joe® seller. If in the event your efforts are unsatisfactory, please reach out to us directly.



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