



OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

2-IN-1 CORDLESS VACUUM + MULCHER

48V MAX* | 38 MPH MAX | 850 CFM MAX

Model 24V-X2-OGV-RM

Form No. SJ-24V-X2-OGV-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 vacuum + mulcher, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

Before using the vacuum + mulcher, take the time to familiarize yourself with the controls, especially how to stop the machine in an emergency. The only individuals who should use the vacuum + mulcher 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 vacuum + mulcher.

Retain this manual for future reference and reread it at the start of each vacuuming/mulching session.

General Safety

1. **Keep work area clean and well-lit** – Cluttered, dark areas invite accidents.
2. **Replacement parts** – When servicing this unit, use only identical replacement parts.
3. **Keep children, bystanders, and pets away** – All spectators, including pets, should be kept a safe distance away from the work area.
4. **Dress properly** – Do not wear loose clothing or jewelry as such articles can get caught in moving parts. Wear a protective covering to contain long hair. Wearing rubber gloves and substantial non-slip footwear is recommended when working outdoors.
5. **Prevent unintentional starting** – Ensure the switch is off before inserting battery packs, 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.

6. **Remove the battery packs from the appliance before making any adjustments, changing accessories, or storing appliance** – Such preventive safety measures reduce the risk of starting the appliance accidentally.
7. **Do not force the tool** – It will perform better with less likelihood of personal or mechanical injury if it is used at the rate for which it is designed.
8. **Wear personal protective equipment** – When using this tool, wear safety glasses with side shields or goggles to provide necessary eye protection. Wear ear defenders to prevent hearing damage. Use a face or dust mask if the work environment is dusty.
9. **Remove the batteries** – Disconnect the vacuum + mulcher from the power supply by removing the batteries when it is not in use, before servicing it, when changing accessories, and when performing any other maintenance task.
10. **Store idle tool indoors** – When not in use, the vacuum + mulcher should be stored indoors in a dry and high or locked-up place out of the reach of children.
11. **Maintain the vacuum + mulcher with care** – Keep cutting edges sharp and clean for optimal and safest performance. Keep handles dry, clean and free from oil and grease.
12. **Use the right tool** – Do not use the tool for any job except that for which it is intended.
13. **Avoid dangerous environments** – Do not use the vacuum + mulcher in rain, damp, or wet locations.
14. **Stay alert** – Watch what you are doing. Use common sense. Do not operate the vacuum + mulcher when you are tired or under the influence of drugs, alcohol, or other medication.
15. **Do not overreach** – Keep proper footing and balance at all times.
16. **Check Damaged Parts** – Before further use of the appliance, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced. Contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Cordless 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 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.
4. Under abusive conditions, liquid may be ejected from the batteries; 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 battery packs to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.
7. Follow all charging instructions and do not charge the battery packs 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 packs except as indicated in the instructions for use and care.

Service

1. Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
2. Do not modify or attempt to repair the appliance or the battery packs except as indicated in the instructions for use and care.

Battery + Charger Safety Instructions

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 packs 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 vacuum + mulcher and cause it to malfunction, which can lead to serious personal injury.


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

- **Avoid dangerous environments** – Do not charge the battery packs in rain, snow or in damp or wet locations. Do not use the battery packs 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 packs, 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 packs. Vented gases may explode.

NOTE: The safe temperature range for the batteries are 41°F (5°C) to 104°F (40.5°C). Do not charge the batteries 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 18 AWG 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.
- **Charger 24VCHRG-DPC is rated for 120 volt AC only** – The charger must be plugged into an appropriate receptacle.
- **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 remove battery packs from unplugged chargers.

 **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 battery packs** – Battery packs may explode, causing personal injury or damage. Toxic fumes and materials are created when battery packs are burned.
- **Do not crush, drop or damage battery packs** – Do not use the battery packs 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 batteries or charger are damaged, please 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).
- **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 packs and charger in a cool, dry place** – Do not store the battery packs 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.

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 batteries from overheating. Overloads, overcharging and exposure to direct sunlight will result in overheating and cell damage. Never charge or work with batteries that have been overheated – replace them 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 packs in a cool, dry place at a temperature of 77°F (25°C). Protect the battery packs, charger and cordless tool from humidity and direct sunlight. Only place fully charged batteries in storage (charged to at least 40%).
8. Prevent the lithium-ion battery packs from freezing. Battery packs that were 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.

Information about the batteries

1. The battery packs supplied with your cordless vacuum + mulcher are only partially charged. The battery packs have to be charged completely before you use the tool for the first time.
2. For optimum battery performance, avoid low discharge cycles by charging the battery packs frequently.
3. Store the battery packs in a cool place, ideally at 77°F (25°C) and charged to at least 40%.
4. Lithium-ion batteries are subject to a natural aging process. The battery packs must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in aged battery packs are no longer capable of meeting the high power requirements needed for the proper operation of your cordless vacuum + mulcher, and therefore pose a safety risk.
5. Do not throw battery packs into an open fire as this poses a risk of explosion.
6. Do not ignite the battery packs or expose them to fire.

7. Do not exhaustively discharge batteries. 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 batteries falls noticeably or the electronic protection system triggers. Place the battery packs in long-term storage only after they have been fully charged.
8. Protect batteries 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.
9. 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 packs appear 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.
10. If the battery packs suffer overloading and overheating, the integrated protective cutoff will switch off the equipment for safety reasons. If this situation happens, stop the tool and let the batteries cool down for a few minutes before restarting.
11. Use only original battery packs. The use of other batteries poses a fire risk and may result in injuries or an explosion.
7. Do not overcharge batteries. Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of charged or partially charged battery packs will result in overcharging and cell damage. Do not leave batteries in the charger for days on end.
8. Never use or charge batteries if you suspect that it has been more than 12 months since the last time they were charged. There is a high probability that the battery packs have already suffered dangerous damage (exhaustive discharge).
9. Charging batteries at a temperature below 41°F (5°C) will cause chemical damage to the cells and may cause a fire.
10. Do not use batteries that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.
11. 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.)
12. Never fully discharge the battery packs (maximum recommended depth of discharge is 80%). A complete discharge of the battery packs will lead to premature aging of the battery cells.

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 packs and the cordless tool out of the reach of children.
5. Do not use the battery charger to charge other cordless tools.
6. During periods of heavy use, the battery packs will become warm. Allow the battery packs to cool to room temperature before inserting them into the charger to recharge.

Additional Safety Instructions

Personal Safety

- Keep firm footing and maintain good balance at all times. Do not overreach. Overreaching can result in loss of balance.
- Turn off all controls before unplugging the tool.
- Do not use the tool if the power switch does not turn it ON or OFF. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
- Do not use without the collection bag in place.
- Carefully inspect your appliance prior to use and follow all label and marking instructions.
- Always disconnect batteries before connecting or disconnecting the collection bag.
- Do not use for wet material.
- During operation, make sure that the vacuum inlet is properly grounded.
- Never let children operate the unit.
- Keep all parts of your body away from any moving parts and all hot surfaces of the unit.
- Do not put any object into the tool's openings. Do not use the tool with any opening blocked; keep openings free of dust, lint, hair or any other object that may reduce air flow.

- Check the work area before each use. Remove all objects such as rocks, broken glass, nails, wire or string which can be thrown or become entangled in the machine.
- Service on the product must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- This vacuum is intended for residential use only. Commercial use of this product is prohibited and will void the manufacturer's warranty.
- Never douse or squirt the unit with water or any other liquid. Clean the unit after each use as described in the cleaning and storage section.
- Prevent cords, plastic bags, or similar items from getting sucked in, as these might wrap around the impeller fan, which may cause an overload or blocking of the motor. In such a case, switch the vacuum off. Do not leave the vacuum switched on with the motor overloaded or stalled.
- Always operate the machine in an upright position. Do not operate it tilted to one side or even upside-down.
- 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.

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 vacuum + mulching activity. Never assume that children will remain where you last saw them.










- Keep children out of the vacuum + mulching area and under the watchful care of a responsible adult other than the operator.
- Stay alert and turn the vacuum + mulcher 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 remove the batteries before servicing, cleaning, or removing grass from the vacuum + mulcher.
- 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.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make any adjustments or repairs with the engine (motor) running. Always remove the batteries before adjusting, cleaning or repairing.
- Check the collector bag components and the discharge guard frequently and replace with manufacturer's recommended parts when necessary.

Safety Symbols

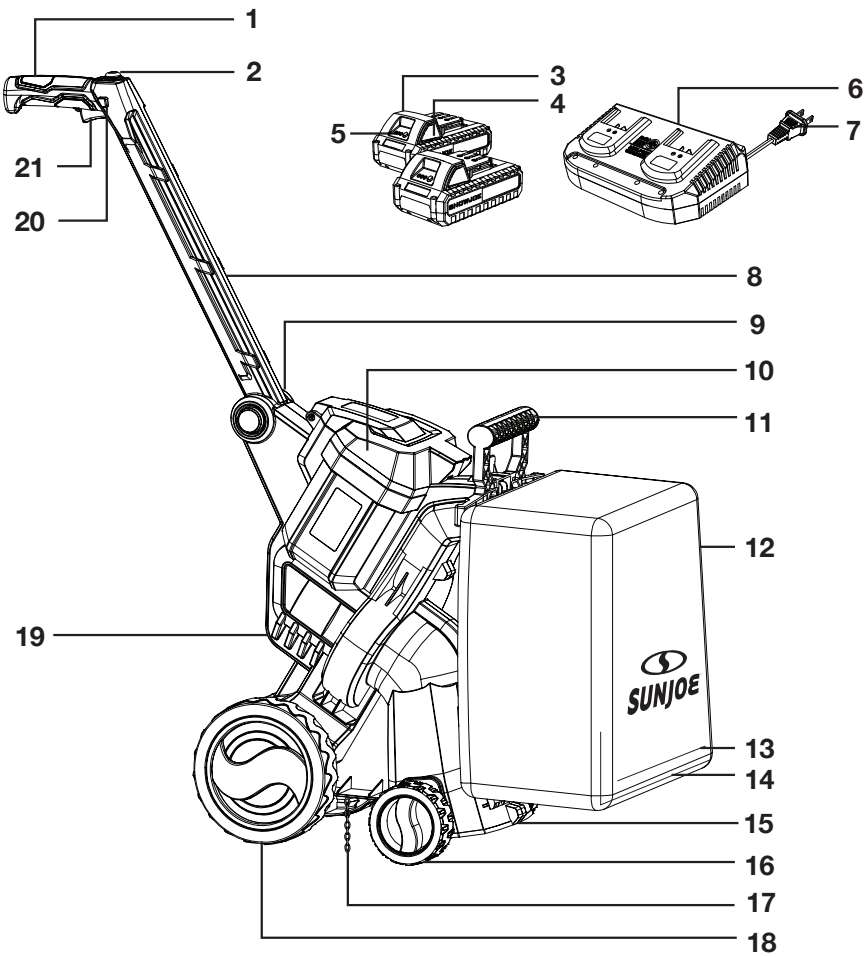
The following table depicts and describes safety symbols that may appear on this product. Read, understand and follow all instructions on the machine before attempting to assemble and operate.

Symbols	Descriptions	Symbols	Descriptions
	READ THE OPERATOR'S MANUAL(S) – Read, understand and follow all instructions in the user manual(s) before attempting to assemble and operate.		Keep bystanders and children a safe distance away.
	SAFETY ALERT – Indicates a precaution, a warning or a danger.		WARNING! Do not expose the unit to rain or wet conditions.
	Beware of flying objects and debris.		Wear hearing protection. Wear eye protection. Wear breathing protection.
	The rotating part will continuously run for several seconds after you turn off the machine.	 	DANGER! Rotating blades pose a serious risk of injury. Keep hands and feet away from openings while the machine is running.

Know Your Cordless Vacuum + Mulcher

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

- 1. Handle grip
- 2. Turbo button
- 3. 24V iON+ lithium-ion battery (24VBAT) featuring exclusive EcoSharp® technology (2)
- 4. Push lock button
- 5. Battery level indicator button
- 6. 24V iON+ lithium-ion dual-port charger (24VCHRG-DPC)
- 7. Charger plug
- 8. Pivoting handle
- 9. Handle pivoting button
- 10. Battery compartment cover
- 11. Collection bag handle
- 12. Collection bag
- 13. Dust pouch zipper
- 14. Leaf pouch zipper
- 15. Vacuum chute/air inlet
- 16. Front wheels (2)
- 17. Anti-static chain
- 18. Rear wheels (2)
- 19. Ventilation slots
- 20. Safety lock button
- 21. On/Off switch



Technical Data

Motor	1100 W	Adjustable Handle Length	17.7 in. (45 cm)
Battery Voltage Max*	48V D.C. (2 x 24V)	Collection Bag Capacity	10.6 gal (40 l)
Battery Capacity	4.0 Ah	Mulching Reduction Ratio	15:1
Charger Input	120V AC, 60Hz, 160 W	Air Inlet Height	Low: 1.4 in. (3.6 cm) High: 2.2 in. (5.6 cm)
Charger Output	26V DC, 2 x 2.2 A	Front Wheel Size	4 in. (10 cm)
Charge Time Max	1 hr 50 min	Rear Wheel Size	7 in. (18 cm)
Vacuum Air Flow Max	850 CFM (24 m³/min)	Net Weight	18 lbs (8.2 kg)
Air Speed Max	38 MPH (61.2 km/h)		
Debris Intake	7.5 in. x 5.5 in. (19 cm x 14 cm)		

*Generates 48V max with two 24V lithium-ion batteries. Initial no-load voltage, per fully charged battery, peaks at 24V. Nominal voltage under typical load is 21.6V.

Unpacking

Carton Contents

- Cordless vacuum + mulcher
- Front wheels (2)
- Front wheel hubs (2)
- Collection bag with supporting frame
- 24V iON+ lithium-ion batteries (2)
- 24V iON+ lithium-ion dual-port battery charger
- Manual with registration card

1. Carefully remove the vacuum + mulcher 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.

NOTE: Do not discard the shipping carton and packaging material until you are ready to use your new cordless vacuum + mulcher. 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 two lithium-ion batteries. The battery packs are completely sealed and maintenance free.






⚠ WARNING! The cordless vacuum + mulcher can only be powered by both of the batteries together. One battery cannot provide sufficient power to the tool. Make sure to use two batteries of the same voltage and the same capacity. Using the tool with batteries of different capacity will cause damage to the batteries.

⚠ WARNING! Before first use, the batteries require 1 hr 50 min charge time to be fully charged. When the batteries are at low capacity, recharge for 1 hr 50 min again before resuming operation.

Battery Charge Level Indicator

The battery packs are 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 batteries into 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 24V iON+ lithium-ion battery packs with their compatible 24V iON+ 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.

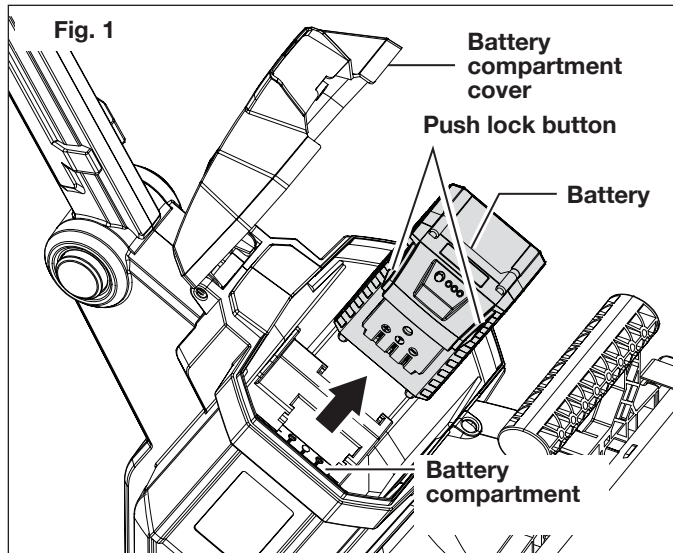
When to Charge the iON+ 24VBAT Lithium-Ion Batteries

NOTE: The iON+ 24VBAT lithium-ion battery packs do not develop a "memory" when charged after only a partial discharge. Therefore, it is not necessary to run down the battery packs before placing them into the charger.

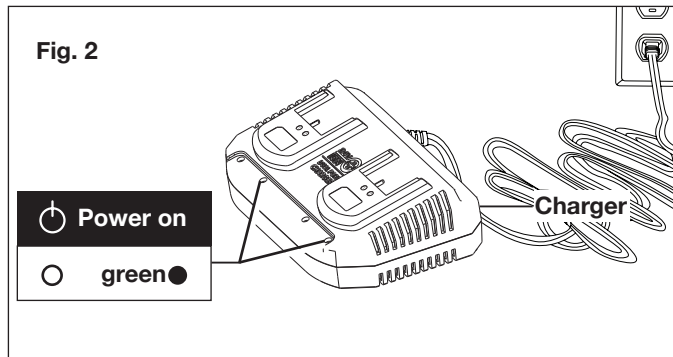
- Use the battery charge indicator lights to determine when to charge your iON+ 24VBAT lithium-ion battery packs.
- You can "top-off" your battery packs' charge before starting a big job or after a long day of use.

Charging the Batteries

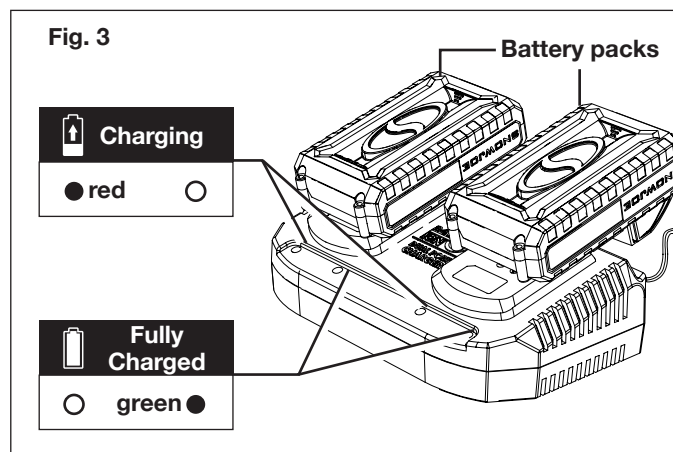
1. Open the battery compartment cover to expose the battery packs inside. Press the push lock buttons on the batteries to pull the battery packs out of the equipment (Fig. 1).



2. Check that the mains voltage is the same as that marked on the rating plate of the battery charger. Then, insert the charger's plug into the electrical wall outlet. When you plug in the charger, two green lights will illuminate and stay green (Fig. 2).



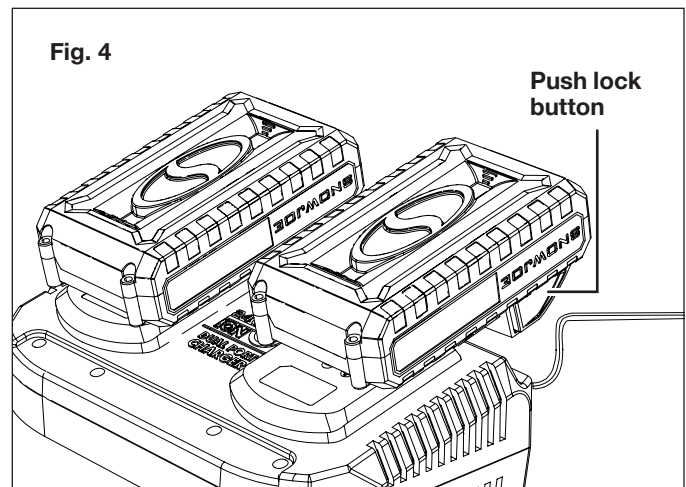
3. Place the battery packs into the charger by sliding the packs to lock them into position. When you insert the batteries into the charger, the two green lights will go off, and the red lights will illuminate to indicate that the batteries are charging (Fig. 3).



4. When the charger lights turn green, the batteries are fully charged (Fig. 3).

NOTE: A fully discharged pack with an internal temperature in the normal range will fully charge in 1 hr 50 min (between 32°F/0°C and 113°F/45°C).

5. If the light indicators do not come on at all, check that the battery packs are fully seated into the bay. Remove the battery packs and reinsert. If the problem persists, 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.
6. When charging is complete, remove the batteries from the charger by pressing the push lock buttons and sliding the batteries backward to unlock them from the charger (Fig. 4).



CAUTION! FIRE HAZARD. When remove the batteries from the charger, be sure to unplug the charger from the outlet first, then remove the batteries from the charger.

WARNING! This charger does not automatically turn off when the batteries are fully charged. Please take care not to leave the batteries in the charger. Switch off or unplug the charger at the mains when charging is complete.

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

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

Charging a Hot or Cold Battery Pack

The green indicator lights on the charger base indicates that the battery packs' temperatures are outside the charging range. Once the packs are within the acceptable range, normal charging will take place and the red light will be continuous. Hot or cold battery packs may take longer to charge.

Assembly

⚠ WARNING! To avoid serious personal injury, read and understand all safety instructions provided.

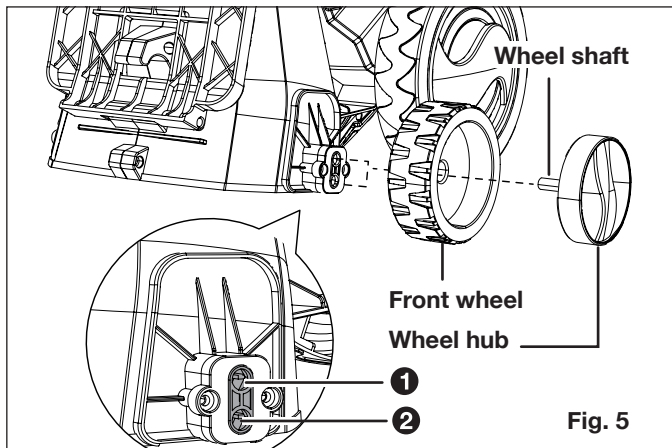
⚠ WARNING! Do not insert the batteries until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

⚠ WARNING! Before performing any maintenance, make sure the tool is off and batteries are removed. Failure to heed this warning could result in serious personal injury.

⚠ WARNING! To prevent serious personal injury, make sure the switch is not squeezed, the batteries are removed and the impeller has come to a complete stop before attaching or removing the collection bag.

1. Assemble the front wheel with the wheel hub as shown below. Insert the shaft of the wheel hub into one of the holes located on the side of the vacuum chute, and rotate the wheel hub clockwise until it cannot be rotated anymore (Fig. 5).

NOTE: Adjust the vacuum to obtain the optimal air inlet height by aligning the wheel shaft to the hole at the corresponding height.



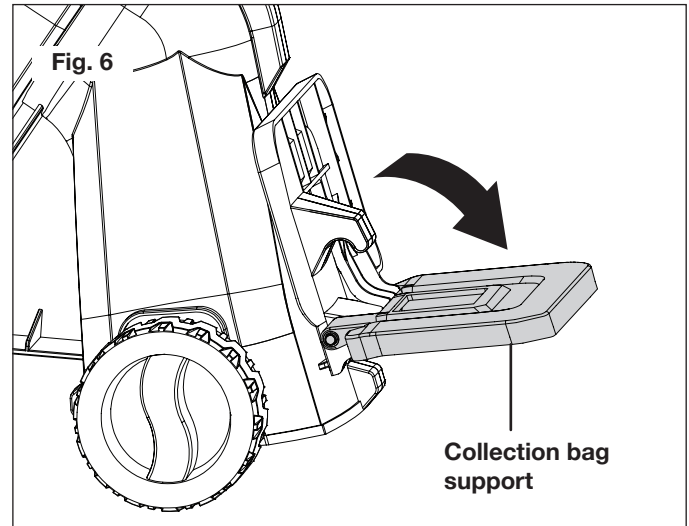
2. Repeat the above assembly step for the other wheel, make sure both wheels are set to the same height.

2-Position Height Adjustment:

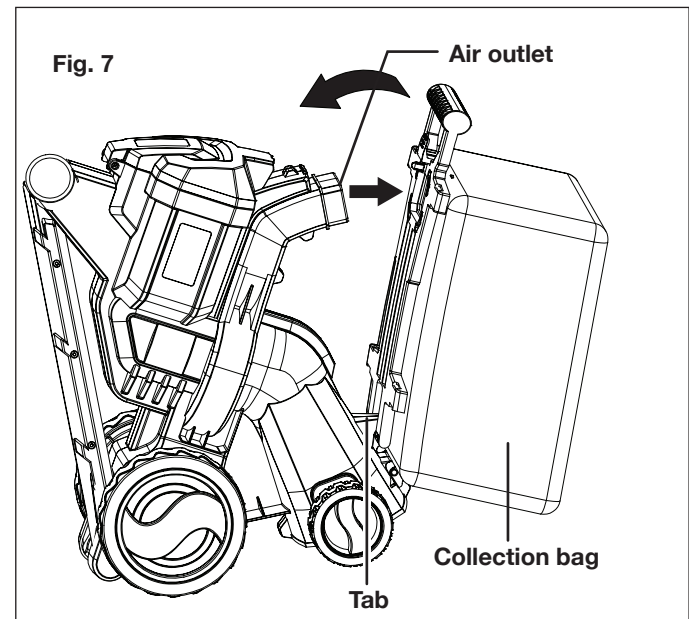
- 1) Low: 1.4 in. (3.6 cm)
- 2) High: 2.2 in. (5.6 cm)

NOTE: Choose the air inlet height according to the terrain that the vacuum will be working on. To work on flat surface, lower the air inlet height. To work on lawn or uneven surface, increase the air inlet height.

3. Flip down the collection bag support located on the bottom of the chute (Fig. 6).

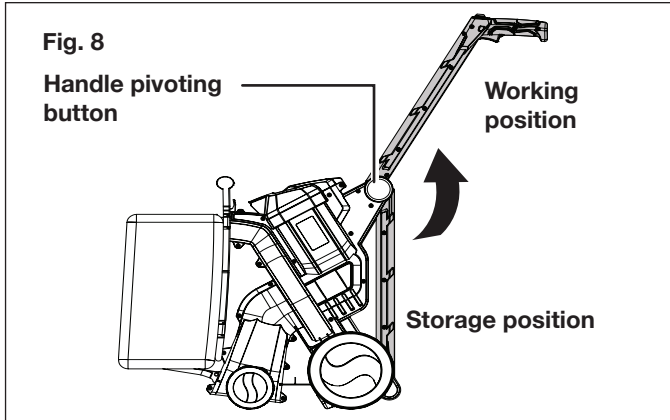


4. To attach the collection bag, first place the bottom of the collection bag on the collection bag support and insert the tab on the chute into the hole on the bottom of the collection bag, then align and insert the air outlet into the hole on the top of the bag. Press firmly until it clicks and locks securely into place (Fig. 7).



NOTE: The collection bag must be attached any time the unit is being operated. The unit cannot start if the collection bag is not attached properly.

5. Press on the handle pivoting button and rotate the handle at the same time, until the handle is fully extended and clicks into the working position (Fig. 8).



⚠ DANGER! To avoid personal injury, the handle must be fully extended in working position during operation.

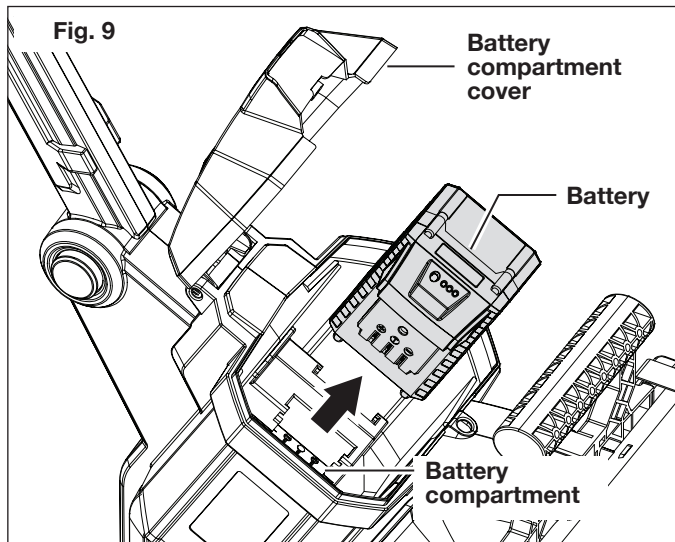
Operation

Starting + Stopping

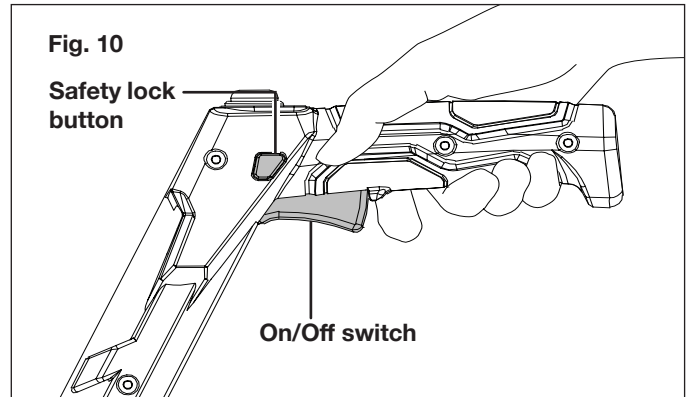
Do not switch on the vacuum until it has been completely assembled.

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

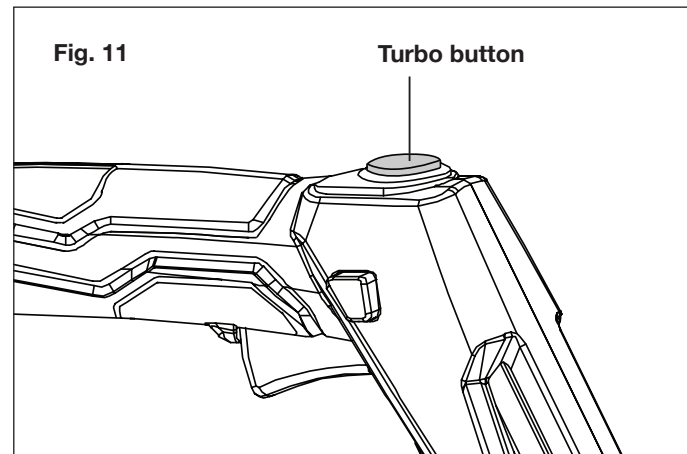
1. Insert the batteries until you hear them click into place, then close the compartment cover (Fig. 9).



2. To start the unit, press the safety lock button, and squeeze the On/Off switch. Once the machine powers on, release the safety lock button and proceed with operation (Fig. 10).



3. This unit is equipped with a Turbo button that will allow the vacuum to reach 850 CFM. Press and hold the Turbo button to activate. Release the Turbo button to turn Turbo mode off (Fig. 11).



⚠ WARNING! The Turbo button is for short term use only. Do not use the Turbo function for extended periods of time. Using this function for an extended time can cause damage.

4. To stop the unit, release the On/Off switch (Fig. 10).

Operating Tips

This cordless vacuum + mulcher is designed to clean hard surfaces as paved paths, courtyards and terraces. It is only suitable for vacuuming dry, light materials such as grass, leaves, small twigs and acorns. The vacuuming of heavy materials such as metal, stones, branches, broken glass, and wet leaves is expressly excluded.

⚠ WARNING! Use the cordless vacuum + mulcher only in daylight or good artificial light.

- Wear personal protective equipment during your work session. This includes boots, safety glasses/goggles, ear defenders, long pants and a long-sleeve shirt.
- Make sure the collection bag is properly installed and zipped closed.
- To reduce the risk of hearing loss associated with sound level(s), hearing protection is required.
- Before starting, make sure the handle is securely set into working position.

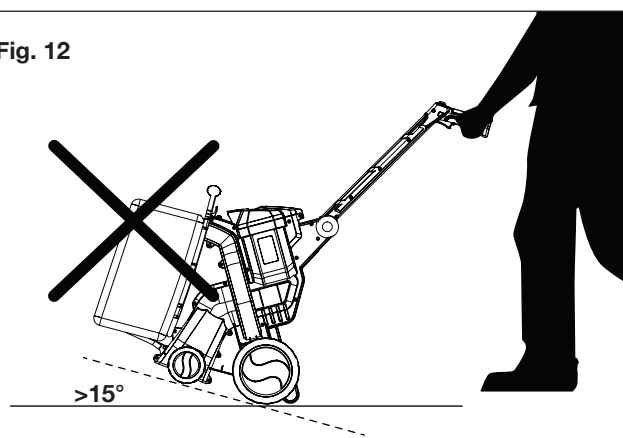
- Operate power equipment only at reasonable hours—not early in the morning or late at night when people might be disturbed. Comply with times listed in local ordinances. Usual recommendations are 9:00 am to 5:00 pm, Monday through Saturday.
- Be extremely careful when working on slopes.
- Always move forward by walking. Never run.
- To reduce noise levels, limit the number of pieces of power equipment used at any one time.
- Clean up after using vacuums and other lawn equipment. Dispose of debris appropriately.

⚠ WARNING! To avoid serious personal injury, wear ear defenders, goggles or safety glasses at all times when operating this unit. Wear a face mask or dust mask in dusty locations.

Basic Vacuum/Mulcher Procedure

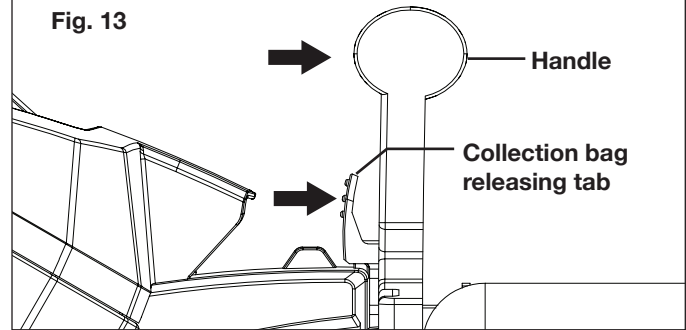
- Make sure the vacuum is stable and all 4 wheels are in contact with the ground.
NOTE: The unit will not start if any of the rear wheels are not touching the ground.
- Always stand behind the unit. Do not turn on the unit when people are kneeling or sitting next to it.
- With a firm hold on the handle grip, move the unit slowly and steadily to place the air inlet over the debris to be vacuumed. The debris will flow into the bag. Items such as small leaves and twigs will be mulched as they pass through the impeller. For longer bag life and increased performance, empty the bag frequently.
- During operation, do not press down on the handle grip to tilt the front of the vacuum. If tilted more than 15 degrees, the machine will shut off and won't operate (Fig. 12).

Fig. 12



- During operation, keep the ventilation slots unblocked. Blocked ventilation slots will cause the machine to overheat.
- When the bag is full, the suction power of the tool will decrease. Release the On/Off switch and remove the batteries. Push the releasing tab and pull the bag off the unit by the handle at the same time to release the collection bag (Fig. 13).

Fig. 13



- To empty the bag, hold the plastic handle and unzip both zippers of the bag. Shake out any debris and leaves.

NOTE: This unit is equipped with dust filtration capability which separates the accumulated mulch from the fine dust. For optimal performance, it is recommended to empty both compartments everytime after using.

⚠ WARNING! To prevent serious personal injury, make sure the switch is not squeezed, the batteries are removed and the impeller has come to a complete stop before attaching or removing the collection bag.

Maintenance

To order genuine replacement parts or accessories for the Sun Joe® 24V-X2-OGV-RM cordless vacuum + mulcher, please visit sunjoe.com or contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

⚠ WARNING! Remove the batteries before performing any maintenance task.

If the batteries are inside the appliance, someone could accidentally turn on the unit while you are performing maintenance on it, which could result in serious personal injury.

Clearing The Blocked Inlet/Outlet

During the vacuuming process, certain objects such as cloth, rope or large diameter sticks may obstruct and block the air inlet/outlet. An overcurrent protection device, which is built into the vacuum, will cut off the power to the motor to prevent damage from overheating. When this happens, follow the instructions below to clean the blocked air inlet/outlet.

⚠ WARNING! To avoid serious personal injury, be sure the unit is OFF and batteries are removed before clearing the air inlet.

⚠ WARNING! To avoid serious personal injury, always wear gloves to protect yourself from any sharp objects.

1. Release the On/Off switch and wait until the unit comes to a complete stop.
2. Remove the batteries
3. Remove the collection bag.
4. Turn the machine sideways to expose the air inlet. Wearing protective gloves, carefully reach and remove the material

blocking the chute from the air inlet. Inspect to ensure no damage has occurred.

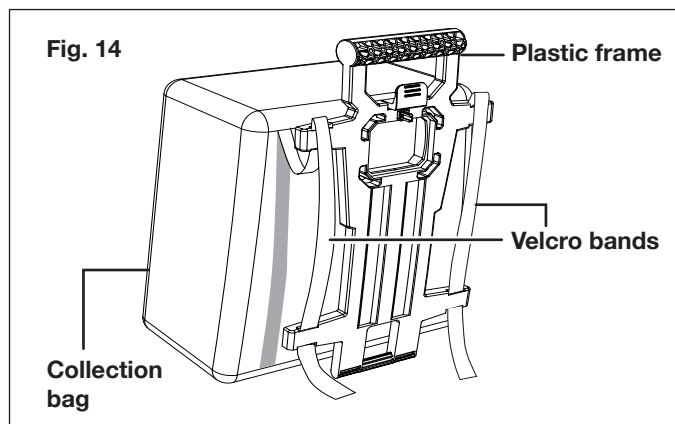
5. Reinstall the collection bag. Wait 3 minutes for the motor to cool.
6. Re-insert the batteries and start the unit. The vacuum will resume normal function.

Cleaning the Unit

⚠ WARNING! To avoid serious personal injury, always turn the unit off and remove the batteries before cleaning or servicing.

Use a small brush to clean the outside of the unit. Do not use strong detergents, household cleaners that contain aromatic oils (e.g. pine and lemon) or harsh solvents such as kerosene as these substances can damage the plastic housing or the handle. Wipe off any moisture with a soft, dry cloth.

1. Empty the bag after each use to avoid deterioration and obstructing air flow, which will reduce the performance of the vacuum + mulcher.
2. Wear eye protection and a dust mask. Clean the bag as needed. Turn the bag inside out after initial emptying and vigorously shake out dust and debris.
3. Wash the bag once a year, or more often if needed. Follow the steps below:
 - i. Remove the bag.
 - ii. Unclip the 2 Velcro bands used to secure the bag on the supporting frame, and release the string that is used to fix the bag on the upper slot of the frame. Remove the collection bag from the frame (Fig. 14).



- iii. Turn the bag inside out.
- iv. Hang it up.
- v. Hose it down thoroughly.
- vi. Leave it hanging to dry.
- vii. Turn the bag right-side out and reinstall.

Storage

1. Examine the cordless vacuum + mulcher thoroughly for worn, loose, or damaged parts. Should you need to repair or replace a part, 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.

2. Remove the batteries from the cordless vacuum + mulcher before storing.
3. Store the vacuum + mulcher in a dry, well-ventilated place that is inaccessible to children. Keep away from corrosive agents.

Disposal

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 packs 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 batteries 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-X2-OGV-RM cordless vacuum + mulcher requires service or maintenance, please call 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 vacuum + mulcher. Copy these numbers into the space provided below.

Record the following numbers from the housing or handle of your new product:																			
Model #:																			
2	4	V	-	X	2	-	O	G	V	-	R	M							
Serial #:																			

24VCHRG-DPC

Federal Communications Commission (FCC)

⚠ WARNING! Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Class B device:

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 to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

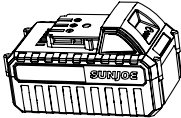

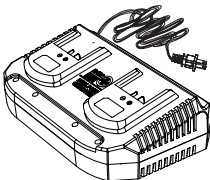
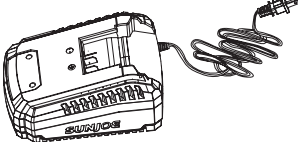
Troubleshooting

- Remove the batteries 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.

Problem	Possible Cause	Solution
Unit will not vacuum	<ol style="list-style-type: none"> 1. Bag full. 2. Blocked air inlet/outlet. 3. Blocked impeller. 4. Dirty bag. 5. Torn bag. 6. Bag unzipped. 7. Batteries are not inserted. 	<ol style="list-style-type: none"> 1. Empty the bag. 2. Clear the blockage. 3. Clear the blockage. 4. Clean the bag. 5. Replace the bag. 6. Zip up the bag. 7. Insert the batteries until they click into place.
Unit will not start	<ol style="list-style-type: none"> 1. Batteries are removed. 2. On/Off switch is not squeezed properly. 3. Defective On/Off switch. 4. The collection bag is not attached properly. 5. The handle is not fully extended. 6. Unit is tilted. 7. Batteries are overheated. 	<ol style="list-style-type: none"> 1. Insert the batteries until they click into place. 2. Press the safety lock button, and squeeze the ON/Off switch. 3. Call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563). 4. Attach the collection bag securely. 5. Extend the handle until it clicks into position. 6. Place the unit stably on the ground, with all 4 wheels touching the ground. 7. Remove the batteries, clear any blockage, and let it cool down for a while.

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 tool. Contact Snow Joe® + Sun Joe® if you are unsure whether it is safe to use a particular replacement part or accessory with your tool. The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

Accessories	Item	Model
1 	24V iON+ 4.0 Ah Lithium-Ion Battery	24VBAT
2 	24V iON+ 5.0 Ah Lithium-Ion Battery	24VBAT-XR
3 	24V iON+ Lithium-Ion Battery Dual Port Charger	24VCHRG-DPC
4 	24V iON+ Lithium-Ion Battery Quick Charger	24VCHRG-QC

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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