



CORDLESS HANDHELD RECIPROCATING SAW

24V MAX* | 2.0 Ah | 4 CUTTING BLADES

OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

Model 24V-MPSWVG-LTE-RM

Form No. SJ-24V-MPSWVG-LTE-RM-880E-M-V1

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IMPORTANT!


Safety Instructions


All Operators Must Read These Instructions Before Use

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

General Safety WARNINGS!

Notice the personal safety alert symbol  used in this manual to draw your attention to a WARNING given along with the particular operating instruction. This means that the operation requires special **ATTENTION**, **CAUTION**, and **AWARENESS**.

 **WARNING!** This unit can be dangerous! Careless or improper use can cause serious injury.

 **WARNING!** The cutting blade can cut you. Keep hands and feet away from the blade and the cutting area.

Retain this manual for future reference.

- Avoid accidental starting.
- When the tool is not in use, keep it away from other metal objects.
- Before operating the tool, read the entire manual carefully and make sure you know how to switch the tool OFF in an emergency.

Work Area Safety

1. **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Personal Safety

1. **Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or BATTERY pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
4. **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power Tool Use and Care

1. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

3. **Remove the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery Tool Use And Care

1. **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact 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 tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 245 °F (130 °C) may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

1. **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.
2. **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.

Safety Instructions for Reciprocating Saws

1. **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
2. **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the workpiece by hand or against your body leaves it unstable and may lead to loss of control.

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 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 power tool 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 Sun Joe® 24V lithium-ion battery pack only in its designated Sun Joe® 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.
- **Charger (XZ2600-0450) is rated for 100 – 240 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 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 battery pack** – Battery pack 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 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** – When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- **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. The battery pack supplied with your cordless power tool is only partially charged. The battery pack has 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 pack frequently.
3. Store the battery pack 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 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 cordless reciprocating saw, and therefore pose a safety risk.
5. Do not throw the battery pack into an open fire as this poses a risk of explosion.
6. Do not ignite the battery pack or expose it 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 battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after it has been fully charged.
8. 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.
9. Avoid damage and shocks. Immediately replace batteries that have been dropped from a height of more than 3 feet (1 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.
10. 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 trigger switch any more if the protective cut-off has been activated. This may damage the battery pack.
11. 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.
12. Use appliances only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
13. 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.
14. 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.
15. Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.
16. 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.

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. Do not use the supplied battery charger to charge other cordless tools.
6. During periods of heavy use, the battery pack will become warm. Allow the battery pack to cool to room temperature before connecting with the charger to recharge.
7. Do not overcharge batteries. Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of a charged or partially charged battery pack will result in overcharging and cell damage. Do not leave batteries in the charger for days on end.
8. Never use or charge the battery 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 pack has 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 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 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 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 batteries in storage (charged to at least 40%).
8. Prevent the lithium-ion battery pack 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.

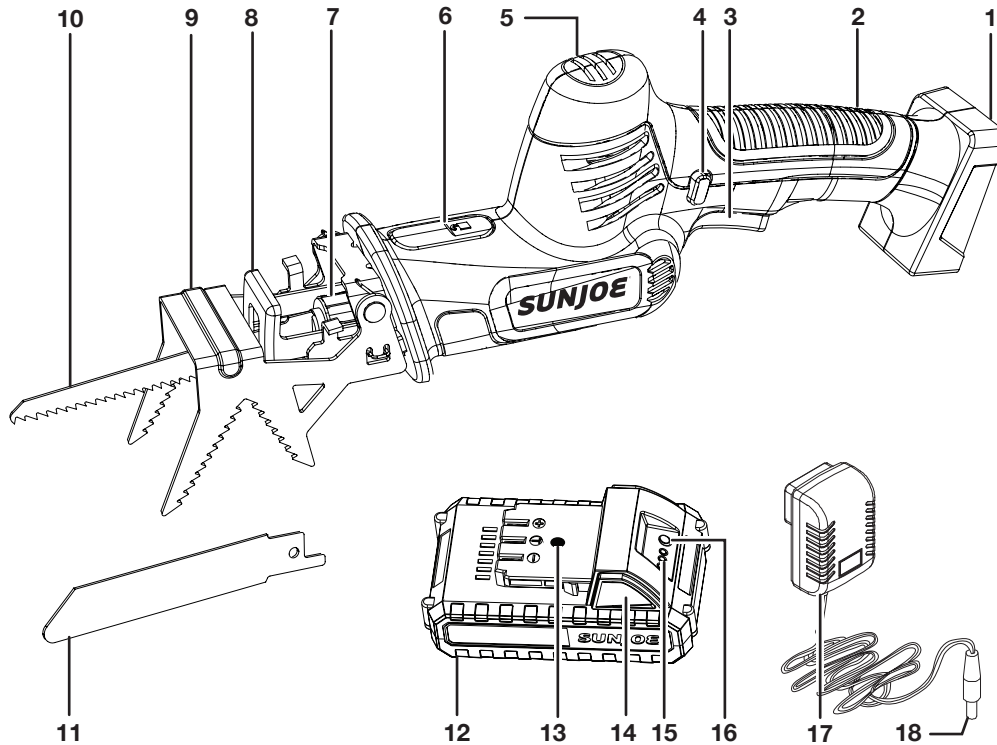
Safety Symbols

The following table depicts and describes safety symbols that may appear on this product. Read, understand and follow all instructions on this tool 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.		SAFETY ALERT – Indicates a precaution, a warning or a danger.
	WARNING! Do not expose the unit to rain or wet conditions. Keep dry.		Risk of Injury. Use safety glasses, hearing protection and dust mask.
	Wear safety gloves during use to protect hands.		Wear non-slip footwear that will protect your feet and improve your footing on slippery surfaces.
	Keep bystanders a safe distance away from the work area.		DANGER! Keep hands away from blade.
	For indoor use only		Only use battery charger indoors.
	Plus; Positive polarity		Minus; Negative polarity

Know Your Handheld Reciprocating Saw

Read the owner's manual and safety instructions carefully before operating cordless handheld reciprocating saw. Compare the illustration below to the cordless handheld reciprocating saw in order to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.



- | | | |
|-------------------------|---|---|
| 1. Battery compartment | 7. Blade locking ring | 13. Charge socket |
| 2. Handle grip | 8. Guide plate | 14. Push lock button (2) |
| 3. On/Off switch | 9. Branch jaw clamp | 15. Battery indicator |
| 4. Safety lock button | 10. Wood cutting blade (2) | 16. Push button for battery indicator |
| 5. Motor head | 11. Metal cutting blade (2) | 17. 24V iON+ lithium-ion charger
(XZ2600-0450) |
| 6. Clamp locking button | 12. iON+ 24V lithium-ion battery
(24VBAT-LTE) featuring
exclusive EcoSharp®
technology | 18. Charger plug |

Technical Data

Motor	150 W	No Load Speed	2600 rpm
Battery Voltage* Max	24V D.C.	Stroke Length	0.87 in. (20 mm)
Battery Capacity	2.0 Ah	Cutting Capacity Max	Wood: 3.14 in. (80 mm) Metal: 0.39 in. (10 mm)
Charger Input	100 – 240 V AC, 50/60 Hz, 0.4 A	Stroke per Minute	2600 spm
Charger Output	26V DC $\overline{=}$ 450 mA	Net Weight	3.66 lbs (1.66 kg)
Charge Time Max	5 hours		

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

Unpacking

Carton Contents

- Handheld reciprocating saw with branch jaw clamp
 - Wood cutting blades (2)
 - Metal cutting blades (2)
 - iON+ 24V lithium-ion battery
 - iON+ 24V lithium-ion battery charger
 - Manual with registration card
1. Carefully remove the cordless handheld reciprocating saw 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 center 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 reciprocating saw. 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.

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.

When to Charge the iON+ 24VBAT-LTE Lithium-iON Battery

NOTE: The iON+ 24VBAT-LTE 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+ 24VBAT-LTE 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. Push the push lock buttons on the battery to pull the battery pack out from the battery compartment (Fig. 1).

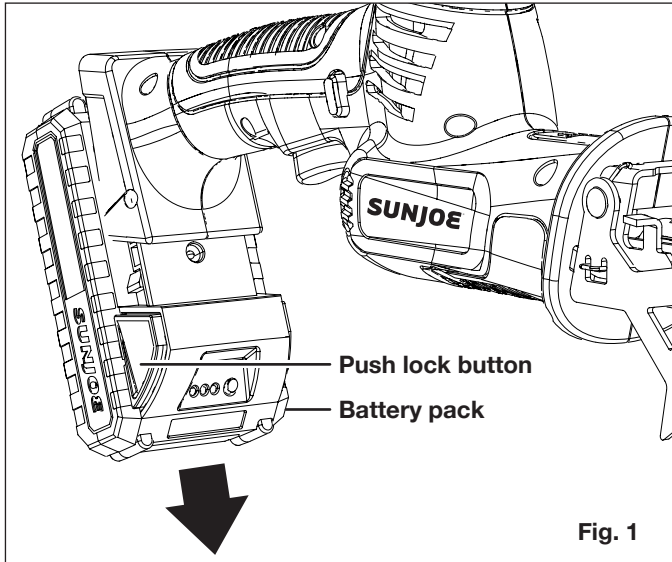


Fig. 1

2. Check that the mains voltage is the same as that marked on the rating plate of the battery charger. Then, plug the charger adapter into an appropriate AC power outlet. Connect the charger plug into the charge socket of the battery to start charging (Fig. 2).

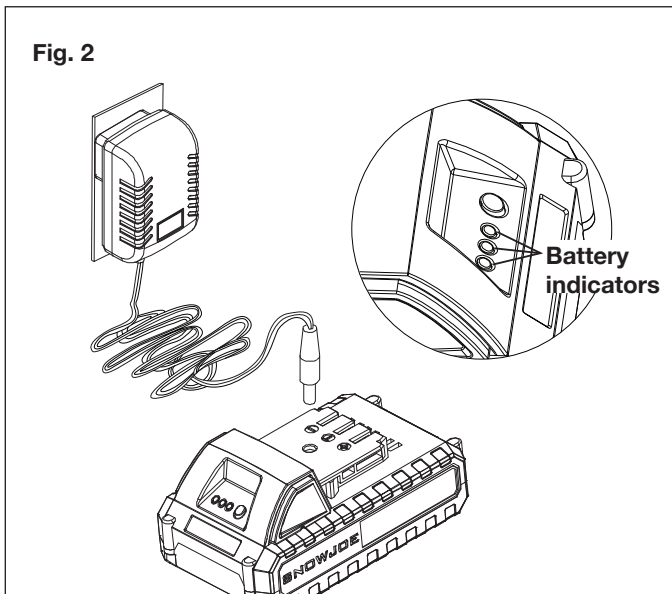


Fig. 2

3. The battery will take approximately 5 hours to charge. The battery indicator LEDs will twinkle and illuminate one by one during the charging process. Unplug the charger immediately when the 3 LEDs are all illuminated.

⚠ 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.

4. 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.

Assembly

⚠ WARNING! Do not insert the battery if it is not completely assembled or if any parts appear to be missing or damaged. Use of a product that is not properly and completely assembled or with damaged or missing parts could result in serious personal injury.

Fitting/Changing the Blade

⚠ CAUTION! Always wear heavy-duty gloves when handling the cutting blade. Mount the blade very carefully so as not to impair the safety and efficiency of the tool. If in doubt, 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).

1. Switch off the reciprocating saw and remove the battery before doing any work on the tool or the blade.
2. It's recommended to remove the branch jaw clamp before assembly. Press the end of the clamp locking button and at the same time pull out the branch jaw clamp from the saw (Fig. 3).

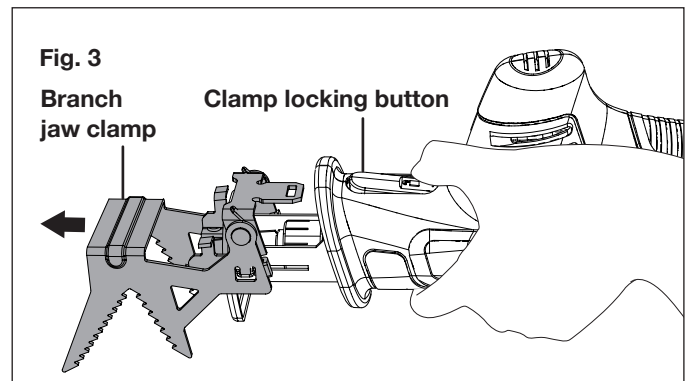


Fig. 3

3. Use one hand to rotate and hold the blade locking ring counterclockwise, and using the other hand to insert the selected blade in the blade holder. Release the blade locking ring to lock the blade in place (Fig. 4).

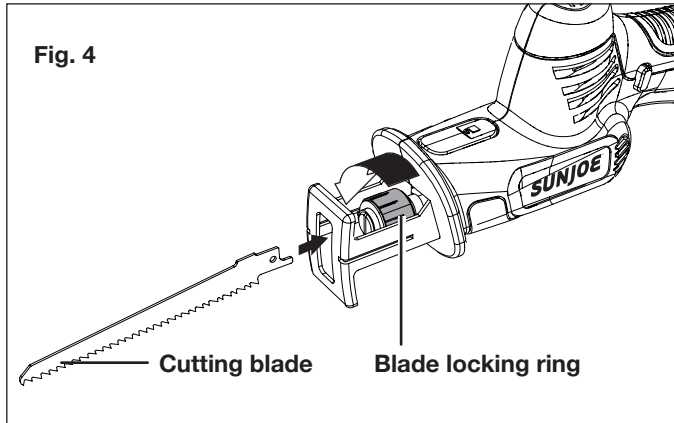


Fig. 4

4. Release the blade locking ring and make sure the blade is securely locked by tugging on the blade a bit.

NOTE: The handheld reciprocating saw is equipped with 2 metal cutting blades and 2 wood cutting blades that can fit in the blade holder. Choose the blade based on the specific need of the cutting job. Check instruction on page 11 for detail information on cutting blades and the material they can cut.

5. Replace the branch jaw clamp if needed. Check the instruction below about how to fit the branch jaw clamp.
6. To remove the cutting blade, rotating and holding the blade locking ring counterclockwise. At the same time pull the cutting blade out of the blade holder.

Fitting the Branch Jaw Clamp

Based on the cutting job, the branch jaw clamp may be needed to fix the workpiece in place. Follow the instruction below to fit the branch jaw clamp.

1. Switch off the reciprocating saw and remove the battery before doing any work on the tool or the blade.
2. Press and hold the end of the clamp locking button, the front of the button will tilted up (Fig. 5).
3. At the same time, slide the jaw clamp along the side of the guide plate and insert the top tab of the jaw clamp inside the hole in the saw housing. The side tabs of the jaw clamp should be in the slots along the side of the guide plate (Fig. 5).

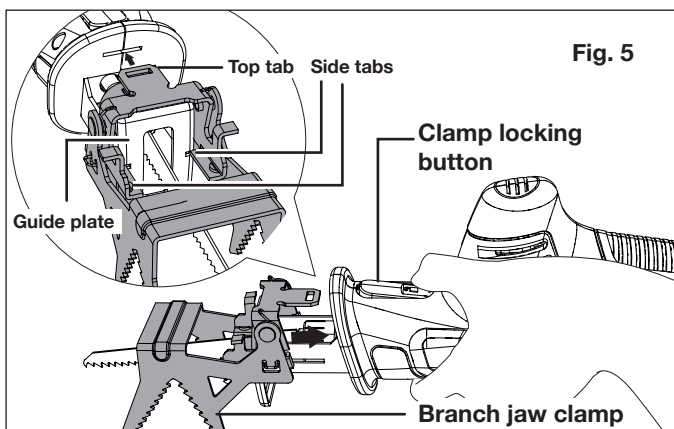
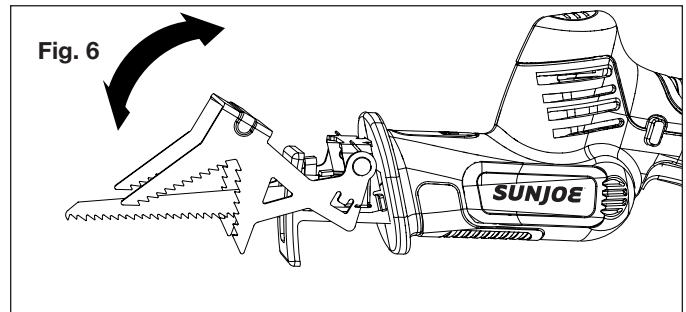


Fig. 5

4. Release the clamp lock button. Make sure the clamp is locked securely by tugging on it.

NOTE: The branch jaw clamp should be locked in place and cannot be pulling out without pressing the locking button. However it should be able to pivoting up freely to allow the blade cutting through the material (Fig. 6).



5. To remove the branch jaw clamp, press the end of the clamp locking button and at the same time pull out the branch jaw clamp from the saw (Fig. 3).

Operation

⚠ WARNING! Do not allow familiarity with products to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠ WARNING! Always remove battery pack from your tool when you are assembling parts, making adjustments, cleaning, or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.

⚠ WARNING! Always wear eye protection with side shields. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

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

IMPORTANT! The product is intended for purposes listed below:

- Cutting all types of wood products (lumber, plywood, panelling composition board, and hard wood).
- Cutting masonite and plastic.
- Cutting drywall.
- Cutting metals such as sheet steel, pipe, aluminum, brass, and copper.

Any other use differing from the above mentioned applications poses a serious hazard to the user and may damage both the tool and your personal property. Improper use of the tool will invalidate the warranty, relieve the manufacturer from all liabilities. The user will consequently be liable for all and any damage or injury to himself/herself or others.

Selecting Blades

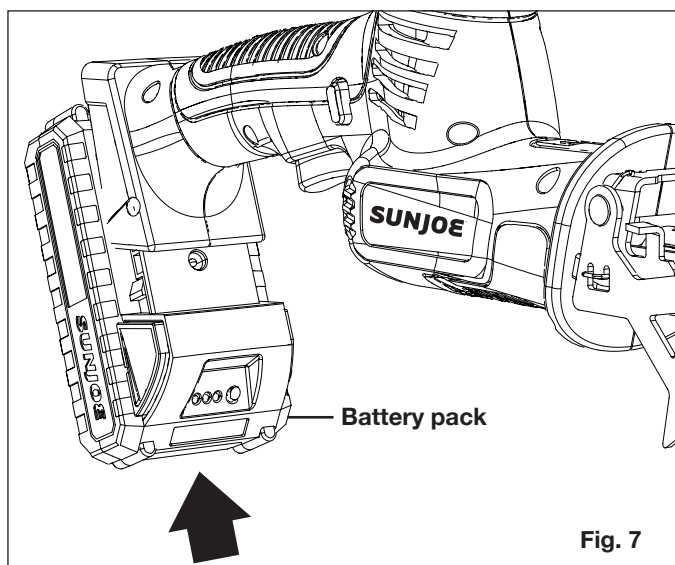
Selecting the correct blade type is important in order to obtain the best performance of the saw. Select the blade based on the application and on the material you wish to cut. Selecting the right blade will give you a smoother, faster cut and prolong the life of the blade.

Blades with fewer teeth are typically used for cutting wood, while blades with more teeth are better for cutting metal or plastic. We recommend 14 TPI for plastics and soft metals and 18 TPI for hard metals. Check the table below for details about the included blades.

	Wood Cutting Blade (x2)	Metal Cutting Blade (x2)
Teeth	7 TPI	26 TPI
Size	Length: 6 in. (152.5 mm) Width: 0.77 in. (19.5 mm) Thickness: 0.05 in. (1.2 mm)	Length: 4 in. (101.5 mm) Width: 0.75 in. (19 mm) Thickness: 0.035 in. (0.9 mm)
Recommended application	Contour cutting in all woods, and composition materials.	All metals less than 1/8". Tubing, conduit and trim.

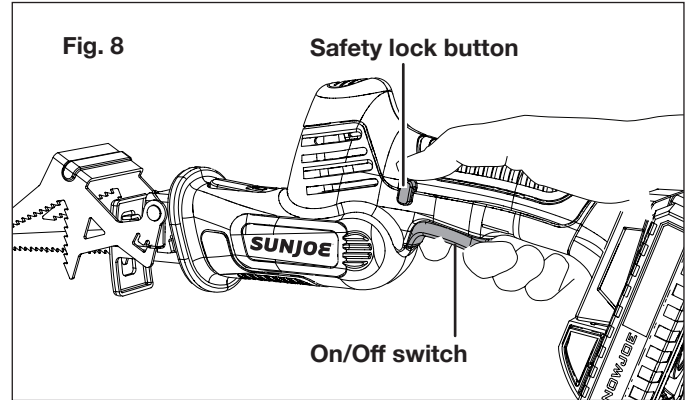
Starting and Stopping

1. Ensure the blade and the branch jaw clamp (if used) are securely assembled. Insert the battery in the battery compartment (Fig. 7).



2. To start the tool, first press and hold the safety lock button, then squeeze the On/Off trigger (Fig. 8). When the machine is running, release the safety lock button.

NOTE: The safety lock button, located on the handle above the On/Off trigger, reduces the possibility of accidental starting.



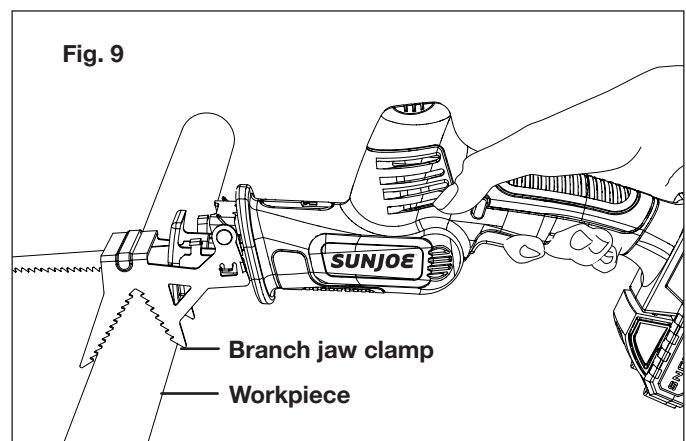
3. To turn off the tool, release the On/Off switch.

Using the Branch Jaw Clamp

The branch jaw clamp will grip the workpiece, providing cutting of unsupported workpiece. When cutting wider branches or timber, the branch jaw clamp can be removed to obtain a deeper cutting capacity. In this case, use a clamp/vise to secure the workpiece in place.

NOTE: When the branch jaw clamp is attached, the cutting capacity with wood blade will be reduced to 1.65 inch (42 mm). The cutting capacity with metal blade will not be affected by the branch jaw clamp.

To use the branch jaw clamp, place the saw on the workpiece as shown (Fig. 9). Switch on the saw and push it against the workpiece. The branch jaw clamp will help to guide the equipment in a straight line.

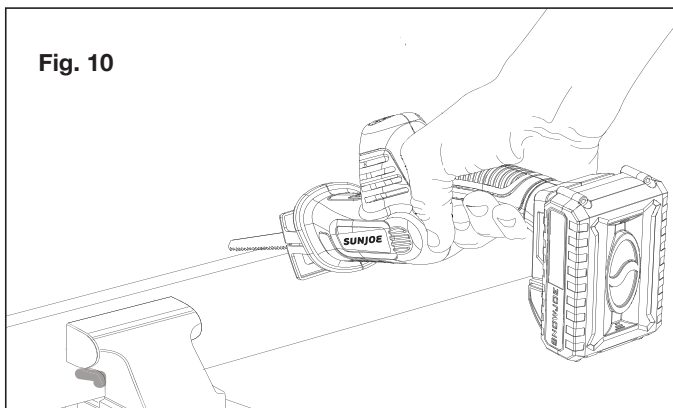


General Cutting Procedures

⚠️ WARNING! Cutting into electrical wiring can cause the blade and the blade clamp to become electrically live. Do not touch metal parts when cutting into a wall; grasp only the insulated surfaces on the tool. Make sure hidden electrical wiring, water pipes, and mechanical hazards are not in the blade path when cutting into a wall.

⚠️ WARNING! Make sure the blade does not touch the workpiece until the motor reaches full speed, since this could cause loss of control resulting in serious injury.

- Secure the workpiece to a work bench or table with a vise/clamps (Fig. 10). Or use the equipped branch jaw clamp to secure the workpiece (Fig. 9).



- Mark the line of cut clearly.
- Make sure the saw blade teeth are clean of any debris or foreign material.
- Hold the saw firmly in front of and clearly away from you.
- Press and hold the safety lock button, and squeeze the On/Off switch.
- Allow the saw blade to reach full cutting speed.
- Set the guide plate against the workpiece.

NOTE: The guide plate helps to stabilize the saw and even the material that being cut. It can also reduce the vibration of the saw significantly.

- With slight pressure, move the blade into the workpiece.

NOTE: Do not force. Use only enough pressure to keep the saw cutting. Let the blade and saw do the work.

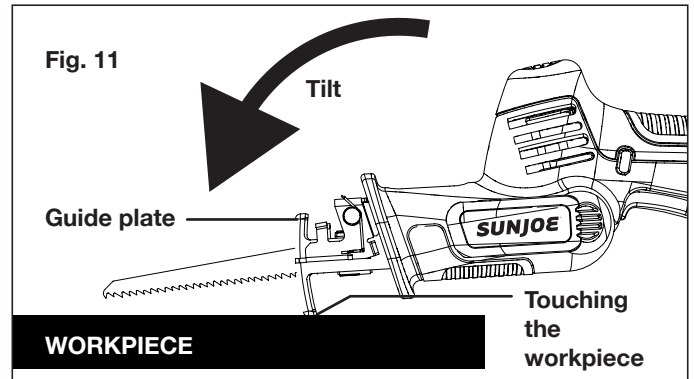
Plunge Cutting

⚠️ WARNING! Blades longer than 6 in. can whip and should not be used for plunge cutting. Failure to heed this warning can result in serious personal injury.

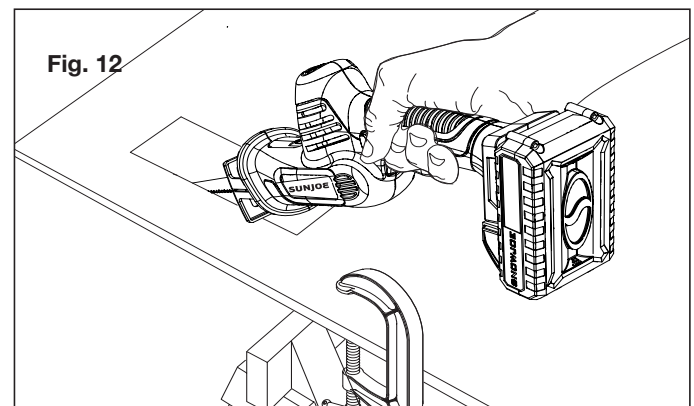
⚠️ WARNING! DANGER OF KICKBACK!

⚠️ WARNING! Make sure the blade does not touch the workpiece until the motor reaches full speed, since this could cause loss of control resulting in serious injury.

- Before cutting, remove the branch jaw clamp.
- Rest the front edge of the guide plate on the workpiece and hold it firmly in position during the cut (Fig. 11). The guide plate will act like the fulcrum for deep cuts because it raises the back end of the saw. Using the guide plate like a pivot point allows you to go deep in the material with precise control.



- Press and hold the safety lock button, and squeeze the On/Off switch.
- Allow the saw blade to reach full cutting speed.
- Tilt the saw until the tip of the blade starts cutting the workpiece (Fig. 11).
- Allow the blade to penetrate the workpiece.
- Tilt the saw until the guide plate is resting on the material and the blade is perpendicular to the workpiece (Fig. 12).



Metal Cutting

You may use the saw to cut metals such as sheet steel, pipe, aluminum, brass, and copper with the equipped metal blade.

Pay attention to the following tips when metal cutting:

- Be careful not to twist or bend the saw blade.
- Do not force the tool and use a slow speed.
- Use cutting oil when cutting soft metals and steel. Cutting oil also keeps the blades cool, increases cutting action, and prolongs blade life.

- **Never** use gasoline since normal sparking of motor could ignite fumes.
- Clamp the workpiece firmly to eliminate any vibration of the work. When cutting conduit pipe or angle iron, clamp the workpiece in a vise if possible and cut close to the vise. To cut thin sheet material, “sandwich” the material between hardboard or plywood and clamp the layers to eliminate vibration and material tearing.
- Always keep firm pressure on the guide plate to hold it securely against the workpiece.

Maintenance

⚠ WARNING! Always switch the product off and remove the battery before performing inspection, maintenance, and cleaning work.

1. Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it down with compressed air at low pressure.
2. It's recommended to clean the equipment immediately every time after use. Use a moistened soft cloth to wipe the plastic housing. Do not use solvents to clean it. Never let any liquid get inside the tool; and never immerse any part of the tool into any liquid.

⚠ WARNING! Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which can result in serious personal injury.

3. Apply oil on the blade and rub the oil over the cutting area.
4. Inspect the product before each use for worn and damaged parts. Do not operate it if you find broken and worn parts.

Storage

When store the tool, proceed as follows:

- Remove the battery from the compartment.
- Clean the product as describe above.
- Store the tool with the battery and charger in a secure and dry location out of reach of children. The storage temperature must always remains in the range of 41°F (5°C) to 104°F (40°C).

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.

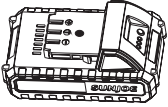
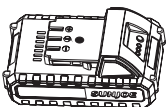
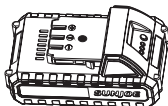
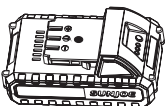



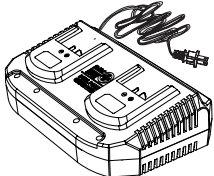
⚠ CAUTION! Even discharged battery packs contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.

⚠ 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 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.

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

Accessories	Item	Model
	24V iON+ 1.3 Ah Lithium-Ion Battery	24VBAT-LTW
	24V iON+ 1.5 Ah Lithium-Ion Battery	24VBAT-LTX
	24V iON+ 2.0 Ah Lithium-Ion Battery	24VBAT-LTE
	24V iON+ 2.5 Ah Lithium-Ion Battery	24VBAT-LT
	24V iON+ 4.0 Ah Lithium-Ion Battery	24VBAT
	24V iON+ 5.0 Ah Lithium-Ion Battery	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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