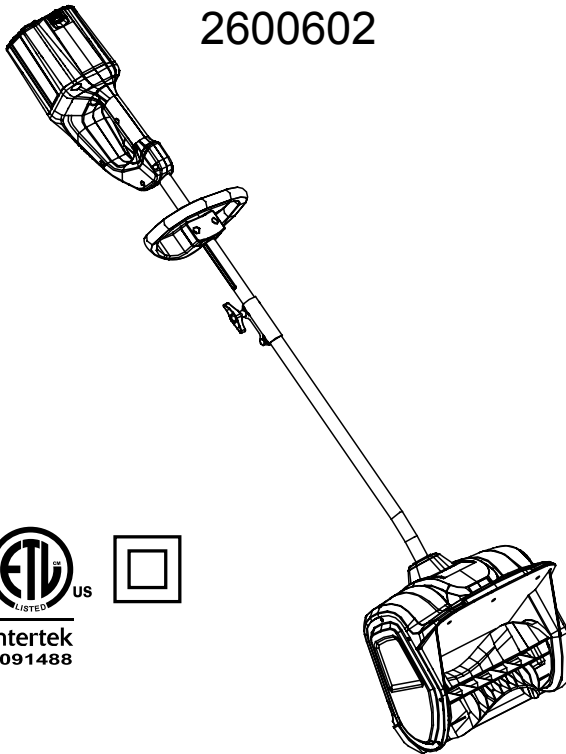



greenworks™


12" 80V Cordless Snow Shovel

2600602



Owner's Manual

TOLL-FREE HELPLINE: 1(855)345-3934

 Read all safety rules and instructions carefully before operating this tool.
www.greenworkstools.com/80V-PRO

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PRODUCT SPECIFICATIONS

12" 80V CORDLESS SNOW SHOVEL

Motor	80V brushless motor
Battery type.....	80V Lithium-ion
No-load speed	1800 RPM
Clearing width.....	12 in. (30 cm)
Clearing depth.....	4 in. (10.2 cm)
Impeller size.....	11 in. (27.8 cm)
Discharge distance.....	20 ft. (6 m)
Weight(with battery).....	19.2 lbs (8.7 kg)

Cold Weather Operation: Lithium Ion batteries can be safely used from temperatures ranging from -17 degrees to 45 degrees Celsius. NOTE: Do not store or charge battery outside. Battery must be charged and stored indoors prior to use of the snow thrower.

Battery may not properly start if it's temperatures is -17°C or lower. If unit does not start remove battery from snow thrower. Place battery on charger and allow to charge for 10 minutes to allow battery to warm. Remove from charger and install in Snow thrower for use.



SAFETY INFORMATION

FOLLOW THESE RULES WHILE OPERATING THE SNOW SHOVEL

IMPORTANT

READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

- Walk. Do not run.
- Verify that the snow shovel is not in contact with anything before turning it on.
- Stay away from the discharge chute and impeller openings at all times. Keep face, hands, and feet away from concealed, moving, or rotating parts.
- Be attentive when using the snow shovel, and stay alert for holes in the terrain and other hidden hazards or traffic.
- Do not use the snow shovel on a gravel or crushed rock surface. Use extreme caution when crossing gravel/crushed rock drives, walks, or roads.
- Move up and down slopes when clearing snow. Do not go across a slope. Use caution when changing direction. Do not use this snow shovel to clear snow from steep slopes.
- Do not attempt to use the snow shovel on a roof or on any steeply inclined slippery surface.
- Do not operate the snow shovel if the guards, plates, and other safety protective devices are not in place.
- Do not operate the snow shovel near glass enclosures, automobiles, trucks, window wells, drop-offs, etc. without properly adjusting the angle of the snow discharge. Keep children and pets away from the work area.
- Do not force or overload the snow shovel. The snow shovel will perform better and safer when it is used at the rate that it was designed to work at.
- Do not operate the snow shovel at high speeds on slippery surfaces. Look behind when backing up and exercise caution.
- Do not direct the discharge toward anyone. Do not allow anyone to move in front of the snow shovel while it is in use.
- Wear safety glasses or goggles that meet ANSI Z87.1 standards.
- Use the snow shovel in daylight or in good artificial light. If using at night, turn on the LED lights and be aware of your surroundings.
- To avoid accidental start-ups, remain in the starting position when turning the snow shovel on. The operator and the snow shovel must be in a stable position during start-up. See the section titled Starting/Stopping Instructions.
- Use this snow shovel only for the purposes it was designed.
- Do not overreach. Always keep proper footing and balance.
- Hold the snow shovel with both hands while it is in use. Keep a firm grip on the handles.
- If the impeller does not rotate freely due to ice, thaw the snow shovel thoroughly before attempting to use it.
- Keep the impeller clear of debris.

SAFETY INFORMATION

- Do not attempt to clear the impeller while the motor is running.
- Keep clothing and body parts away from the impeller.
- Stop the motor when stopped or when moving from one location to another.
- Remove the battery pack when it is being transported and when it is not in use.
- After striking a foreign object, turn the snow shovel off and remove the battery pack, and then inspect it for damage. Repair any damage before restarting and using the snow shovel.
- If the snow shovel starts to vibrate abnormally, stop the snow shovel immediately and attempt to determine the cause. Vibration is generally an indication of danger.
- Stop the motor and remove the battery pack whenever the operator is not in the operating position, before unclogging the impeller, and before making any repairs, adjustments, or inspections.
- Do not discharge snow onto public roads or near moving traffic.
- Allow the snow shovel to run for a few minutes after clearing snow in order to prevent moving parts from freezing.
- Only use identical replacement parts and accessories for this snow shovel. The use of nonidentical parts or accessories could lead to serious injury to the user or damage the snow shovel, and will void the warranty.
- Do not pick up the snow shovel while it is running. The snow shovel is designed to travel along the ground.
- Dress Properly – Do not wear loose clothing or jewelry. They can be caught in moving parts.
- Wear suitable winter footwear when operating the snow shovel.
- Operation of the snow shovel in the hand-held position is unsafe, except in accordance with the special instructions for such use provided in the operator's manual.
- Store Idle Snow Shovel Indoors – When not in use, snow shovels should be stored indoors in dry, locked-up place – out of reach of children.

GENERAL SAFETY RULES

- Verify that the snow shovel is secure while transporting.
- Store the snow shovel in a dry area that will prevent unauthorized use or damage. Keep out of the reach of children.
- Keep handles dry, clean, and free of debris. Clean the snow shovel after each use. Refer to the Maintenance Section in this manual for more information.
- If the labels on the snow shovel become defaced or start to lift off, contact the toll-free helpline, at 1(855)345-3934.
- Keep these instructions in a safe place for future reference. Refer to them often, and use them to instruct other users. Anyone who uses this snow shovel must read these instructions carefully.
- Maintain the snow shovel with care. Follow the instructions for lubricating and changing accessories.

SAFETY INFORMATION

⚠ CAUTION

USE ONLY GREENWORKS APPROVED REPLACEMENT BATTERIES, OTHER BATTERIES MAY CAUSE INJURY OR DAMAGE TO THE SNOW SHOVEL. USE ONLY WITH GREENWORKS 80V BATTERIES (Model#: 2901302) and GREENWORKS 80V CHARGER (Model#: 2901402).

⚠ WARNING (PROPOSITION 65)














Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemical: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.




SYMBOLS

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

SYMBOL	DESIGNATION/EXPLANATION
V	Voltage
A	Current
Hz	Frequency (cycles per second)
Wh	Watt Hour - Energy Storage Capacity
Ah	Amp Hour - Current Capacity
DC	Direct current
	Type or a characteristic of current
RPM	Revolutions per minute
	Double-insulated construction
/min	Revolutions, strokes, surface speed, orbits etc., per minute
	Indicates a potential personal injury hazard.
	To reduce the risk of injury user must read and understand operator's manual before using this product.
	Wear ear protection at all times while operating the machine.
	Always wear eye protection with side shields marked to comply with ANSI Z87.1 when operating this equipment.
	Thrown objects can ricochet and result in personal injury or property damage.
	Keep hands and feet away.
	Danger – Keep hands and feet away from openings while the machine is running. Do not use hands to unclog chute. Stop motor and remove the battery before removing debris.
	Keep bystanders a safe distance from the machine.
	Stop the motor and remove the battery before leaving the machine.
	Keep hands, feet away from the discharge area.
	Stay away from moving parts. Keep all guards and shields in place.

SYMBOLS

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

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

ENVIRONMENTAL PROTECTION



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice. The battery contains material which is hazardous to you and the environment. It must be removed and disposed of separately at a facility that accepts lithium-ion batteries.

SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.

WARNING

To avoid serious personal injury, do not attempt to use this product until you have read this Owner's Manual thoroughly and understand it completely. If you do not understand the warnings and instructions in this Owner's Manual, do not use this product. Call the Toll-free Helpline (1(855)345-3934) for assistance.

WARNING



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

KNOW YOUR SNOW SHOVEL

Read this operator's manual and safety rules before operating your snow shovel. Compare the illustration in Figure 1 to your snow shovel in order to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

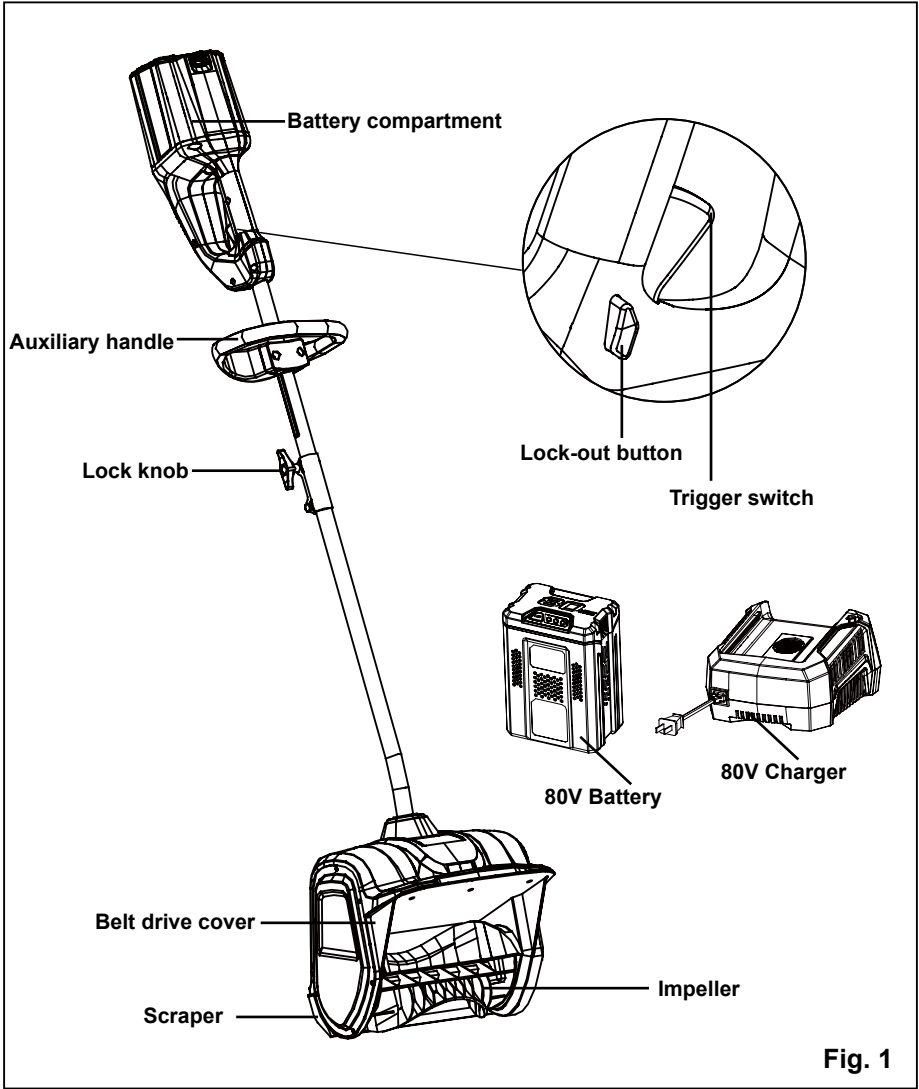


Fig. 1

ASSEMBLY INSTRUCTIONS

UNPACKING

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1(855)345-3934 for assistance.

PACKING LIST

- Snow shovel
- Owner's Manual
- 80V Battery
- 80V Charger

W A R N I N G

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

W A R N I N G

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

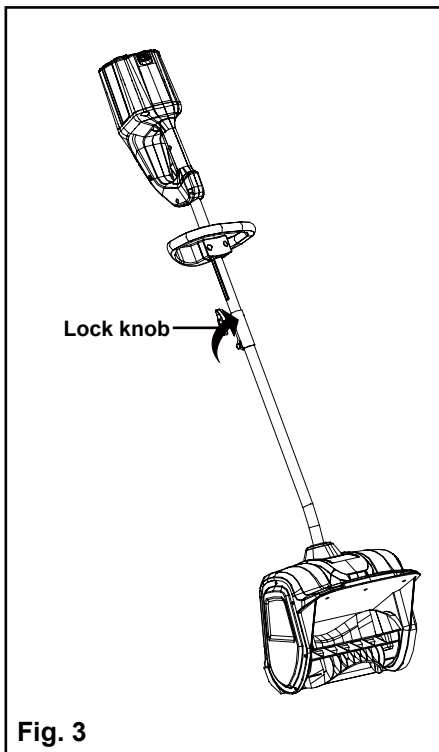
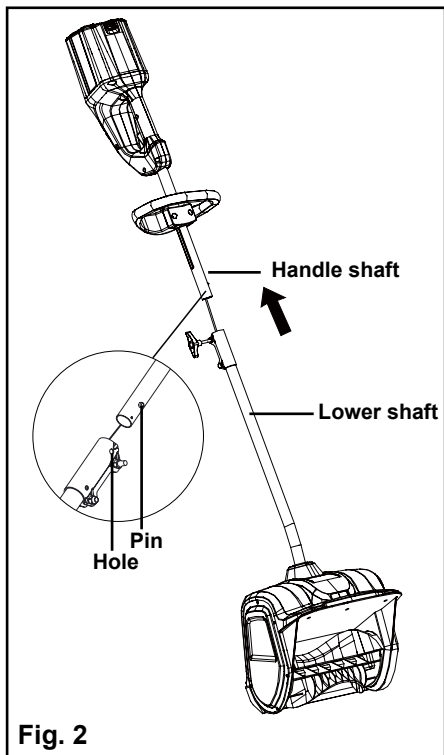
W A R N I N G

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

ASSEMBLY INSTRUCTIONS

CONNECTING THE SHAFTS (See Figure 2-3)

- Align the pin on the handle shaft and the hole on the lower shaft. (Fig. 2).
- Once the two shafts are secure, turn the lock knob clockwise until it is fully tightened. (Fig. 3).



OPERATING INSTRUCTIONS

TO INSTALL BATTERY PACK (See Figure 4)

- Slide the battery (1) down to lock it into position. The battery is fully inserted into the snow shovel when you hear an audible “click”.

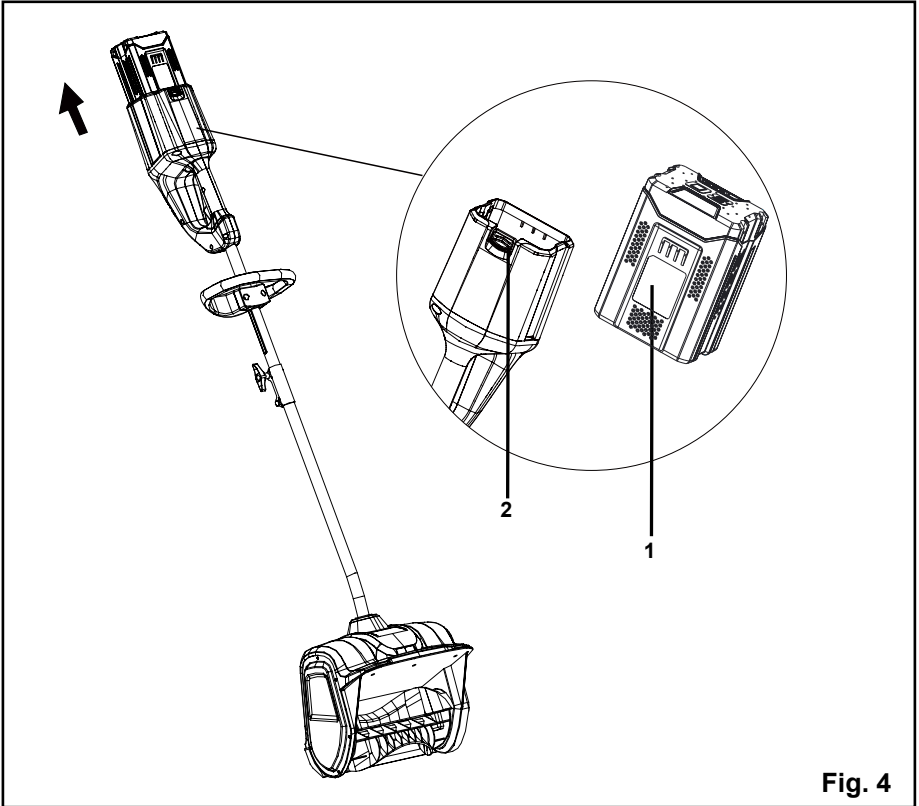


Fig. 4

TO REMOVE BATTERY PACK (See Figure 4)

- Release the trigger switch. The lock-out button will pop out, and the snow shovel will stop.
- Press and hold the battery latch button (2) at the rear handle.
- Remove battery pack from the snow shovel.

OPERATING INSTRUCTIONS

ADJUST THE AUXILIARY HANDLE HEIGHT (See Figures 5)

- Loosen the bolts until the auxiliary handle is no longer secured.
- Move the auxiliary handle to the height you prefer, make sure the raised points on the auxiliary handle are aligned with the groove on one side of the handle shaft.
- Once the handle is set to desired setting, tighten the bolts with a phillips screwdriver until auxiliary handle is secured.

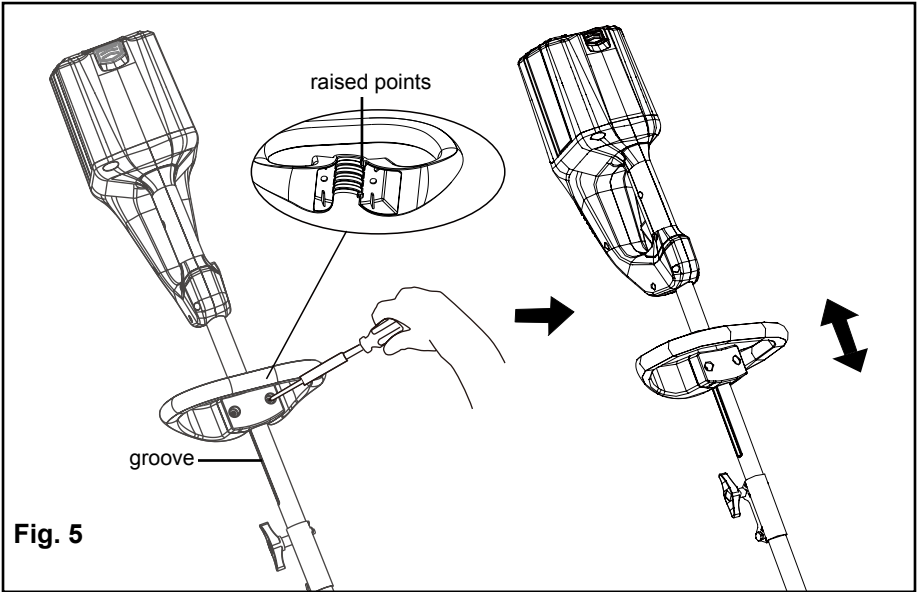


Fig. 5

OPERATING INSTRUCTIONS

STARTING THE SNOW SHOVEL (See Figures 6-7)

In order to avoid serious injury, the operator and unit must be in a stable position when starting the snow shovel.

Follow this sequence exactly in order to start the snow shovel.

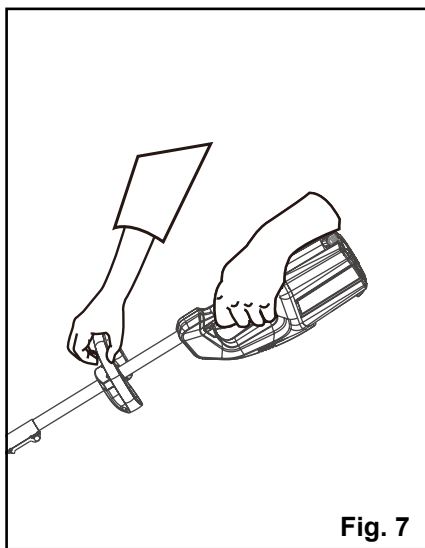
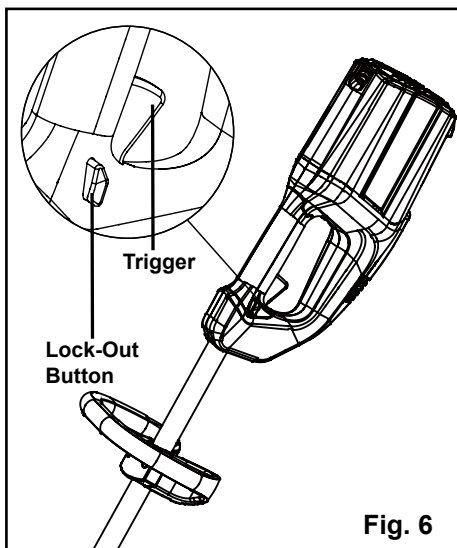
- Verify that the battery pack is inserted into the battery compartment.
- Press and hold the lock-out button (Fig. 6).
- While holding the lock-out button, press and hold the trigger switch.

NOTE: The Snow Shovel will not start if the lock-out button is not held until the trigger switch is lifted. Once trigger is pressed and unit is started, release the lock-out button.

- Hold the handles and begin to use the snow shovel (Fig.7).

STOPPING THE SNOW SHOVEL

- Release the trigger switch.
- The lock-out button will pop out, and the snow shovel will stop.



OPERATING INSTRUCTIONS

USING THE SNOW SHOVEL (See Figures 8)

- Start the snow shovel by following the Starting Instructions. The depth and weight of the snow will determine the forward speed.
- Push the snow shovel forward so that it rides on the scraper.



CHARGING PROCEDURE

NOTE: The battery is not shipped fully charged. It is recommended to fully charge the battery before first use to ensure that maximum run time can be achieved. This lithium-ion battery will not develop a memory and may be charged at any time.

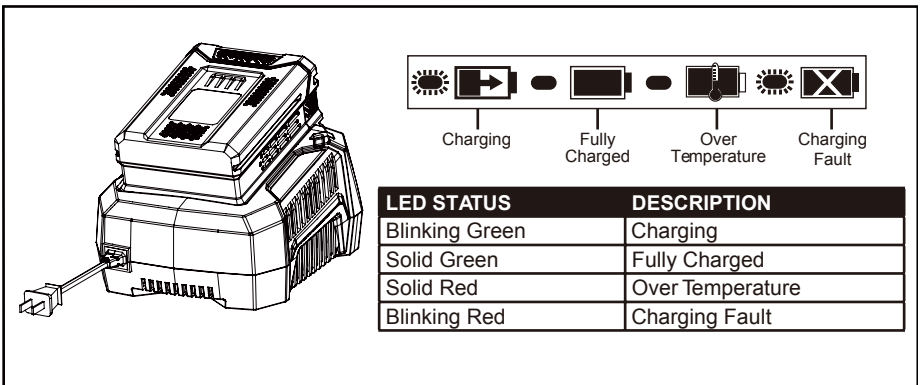
Low voltage charging:

If the battery has been stored with little to no charge for a long period of time, the charger will go into recovery mode, which will take 20 hrs to fully charge the battery. This will enhance the life of the battery. Once it is fully charged, the next charge will return to standard charging.

A fully discharged battery pack will require approximately 30 minutes to fully charge from a discharged state.

- Plug the charger into an AC power outlet.
- Insert the battery into the charger.

This is a diagnostic charger. The Charger LED Lights will illuminate in specific order to communicate the current battery status. They are as follows:



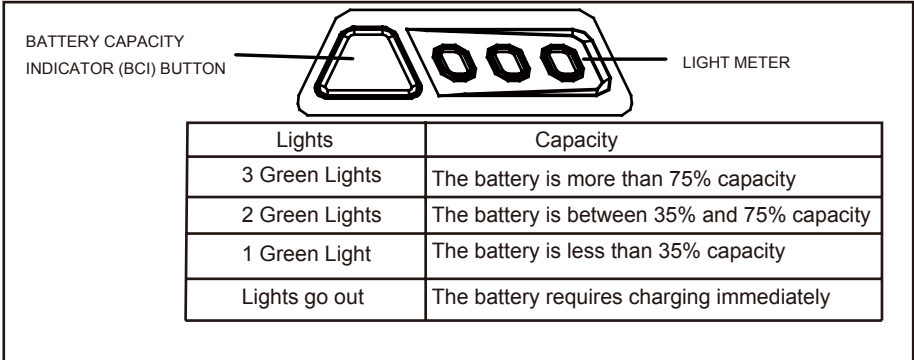
False defect note:

When the battery is inserted into the charger and the status LED blinks RED, remove the battery from the charger for 1 minute, then reinsert. If the status LED blinks GREEN, then the battery is properly charging. If the status LED is still blinking RED, remove the battery and unplug the charger for 1 minute. After 1 minute, plug in the charger and reinsert the battery. If the status LED blinks GREEN, then the battery is properly charging. If the status LED is still blinking RED, the battery is defective and needs to be replaced.

CHECKING BATTERY CAPACITY

Note: The battery is not shipped fully charged. It is recommended to fully charge before first use to ensure that maximum run time can be achieved. This lithium-ion battery will not develop a memory and may be charged at any time. A fully discharged battery pack will require approximately 30 minutes to fully charge from a discharged state.

Press the battery capacity indicator (BCI) button. The lights will illuminate according to the batteries current power level. See chart below:



BATTERY PACK

- Store the battery pack fully charged.
- Once the charging light turns green, remove the battery from the charger.
- Do not store the battery pack on the tool.
- After charging, the battery pack may be stored in the charger, as long as the charger is not plugged in.

CHARGER MAINTENANCE

- Keep the charger clean and clear of debris. Do not allow foreign material to get into the recessed cavity or onto the contacts. Wipe the charger clean with a dry cloth. Do not use solvents or water, and do not place the charger in wet conditions.
- Unplug the charger when there is no battery pack in it.
- Fully charge the batteries before placing them in storage.
- Store the charger at normal room temperature. Do not store it in excessive heat. Do not use the charger in direct sunlight. Recharge at room temperature between 45°F and 100°F (7°C and 38°C). If the battery pack is hot, allow it to cool down before recharging.

ENVIRONMENTALLY SAFE BATTERY DISPOSAL

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

W A R N I N G

All toxic materials must be disposed of in a specified manner to prevent contamination of the environment. Before disposing of damaged or worn out Lithium-ion battery packs, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal centre, certified for Li-ion disposal.

W A R N I N G

If the battery pack cracks or breaks, with or without leaks, do not recharge it and do not use. Dispose of it and replace with a new battery pack. **DO NOT ATTEMPT TO REPAIR IT!** To avoid injury and risk of fire, explosion, or electric shock, and to avoid damage to the environment:

- Cover the battery's terminals with heavy-duty adhesive tape.
 - DO NOT attempt to remove or destroy any of the battery pack components.
 - DO NOT attempt to open the battery pack.
 - If a leak develops, the released electrolytes are corrosive and toxic. DO NOT get the solution in the eyes or on skin, and do not swallow it.
 - DO NOT place these batteries in your regular household trash.
 - DO NOT incinerate.
 - DO NOT place them where they will become part of any waste landfill or municipal solid waste stream.
 - Take them to a certified recycling or disposal centre.
 - Do not use a battery pack that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
-

MAINTENANCE

SERVICING

Servicing should be performed by a qualified technician. Replacement parts for this snow shovel must be identical to the parts that they replace. If repairs are necessary, contact the Toll-Free Helpline, at 1(855) 345 - 3934.

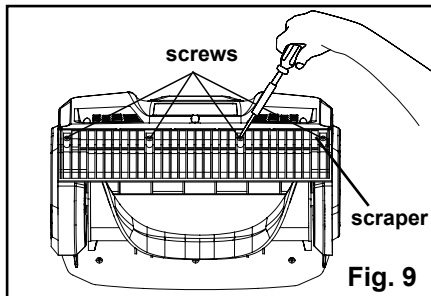
REPLACING THE SCRAPER (See Figure 9-10)

⚠ WARNING

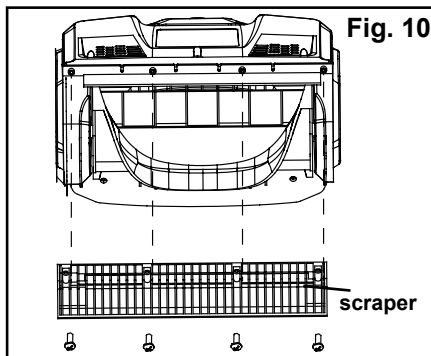
IN ORDER TO AVOID SERIOUS PERSONAL INJURY, TURN THE SNOW SHOVEL OFF AND REMOVE BATTERY BEFORE PERFORMING ANY MAINTENANCE.

Use only the manufacturer's original replacement parts.

- Place the snow shovel on the ground or on a work bench. Position the snow shovel so that the impeller is facing up.
- Remove the four (4) screws that are located beneath the impeller that secure the scraper to the housing using a phillips screwdriver. (Fig. 9).



- Remove the scraper, and discard it in the proper manner. (Fig. 10).



- Snap the new scraper into position, and attach it to the snow shovel by reinstalling the four (4) screws.

MAINTENANCE

STORAGE

- Allow the motor to cool down before storing.
- Store the snow shovel in a locked location in order to prevent unauthorized use or damage.
- Store the snow shovel in a dry, well-ventilated area.
- Store the snow shovel out of the reach of children.

CLEANING

In order to avoid serious personal injury, turn the snow shovel off and remove battery before cleaning or servicing.

Use a small brush to clean the outside of the snow shovel. Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene can damage the plastic housing and handles. Wipe off any moisture using a soft cloth.

MAINTENANCE

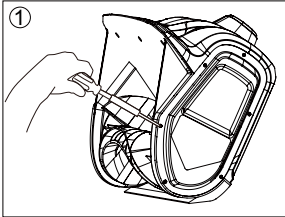
TRANSPORTING THE SNOW SHOVEL (See *Figure 11*)

- Allow the motor to cool down before transporting.
- Secure the snow shovel while transporting.
- When moving the snow shovel, grasp it by the top handle and auxiliary handle. (Fig. 11).

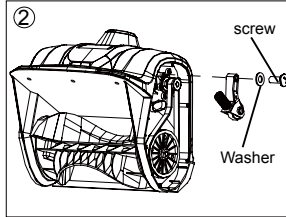


MAINTENANCE

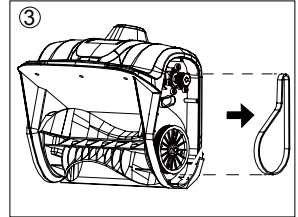
IMPELLOR REPLACEMENT



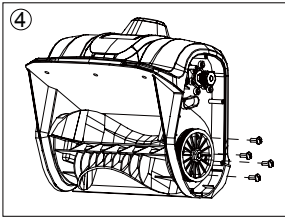
- Remove the right side cover by removing 6 screws.



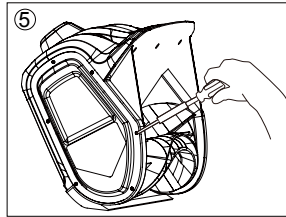
- Pull the belt tensioner (idler arm) away from the drive pulley. Be sure not to lose the washer and screw left.



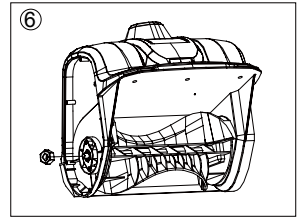
- Remove the belt.



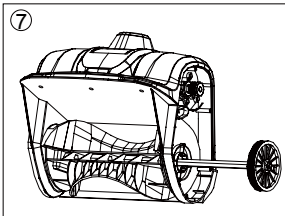
- Remove the 4 screws .



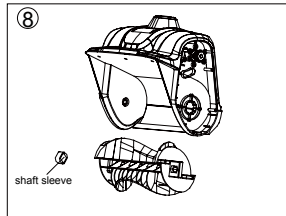
- Remove the left side cover by removing 6 screws.



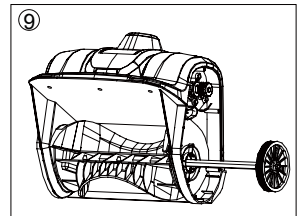
- Remove the nut that secures the left side plate.



- Remove the impellor shaft with pulley assembly attached.



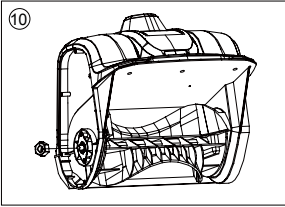
- Withdraw the old/damaged impellor. Be sure not to loose the shaft sleeve that secures left side of the shaft.



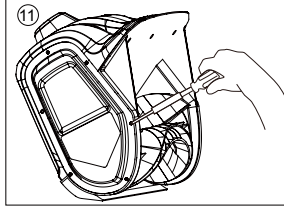
- Insert the impellor shaft with pulley assembly attached in the new impellor. Be sure to replace the retained shaft sleeve that secures left side of the shaft.

MAINTENANCE

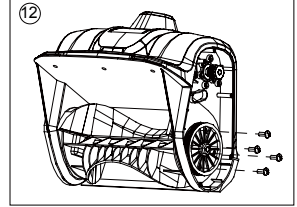
IMPELLOR REPLACEMENT



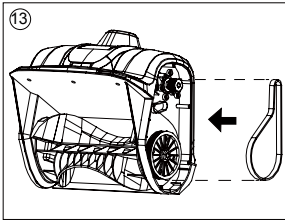
- Replace and tighten the remaining nut to secure the left side plate assembly.



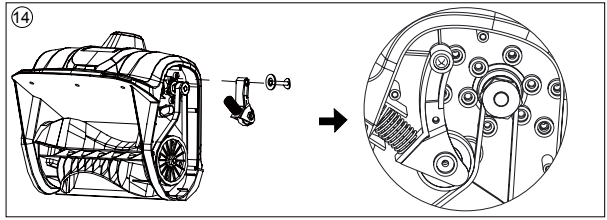
- Replace and tighten the remaining screws to secure the left side cover.



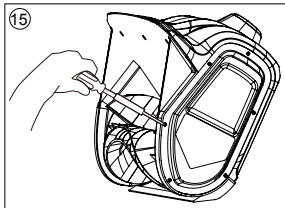
- Replace and tighten the remaining screws to secure the pulley assembly.



- Place the belt back into its place.



- Place the belt tensioner (idler arm) back into its place.



- Replace and tighten the remaining screws to secure the right side cover.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The snow shovel does not start.	The battery is not charged.	Charge the battery by following the procedures in the battery and charger manual or on page 15 of this manual.
	The lock-out button or trigger switch were not used properly.	Press and hold the lock-out button, while holding the lock-out button, press the switch trigger. (See Figure 6).
	Battery is too cold.	Remove battery from snow shovel. Place battery on charger and allow to charge for 10 minutes. Remove from charger and install in Snow shovel for use.
	The battery is not fully inserted into the housing.	Check if the battery is fully inserted into the housing.
	Battery may require service or replacement.	Call toll free helpline, at 1(855)345-3934 or replace battery.
The motor is on, but the rotor does not turn.	The belt is damaged.	Replace the belt (see "IMPELLOR REPLACEMENT" on page 21 -22).
The snow shovel leaves a thin layer	The scraper is worn.	Replace the scraper (See Figure 9-10).

LIMITED FOUR-YEAR WARRANTY



GREENWORKS™ hereby warrants this product, to the original purchaser with **proof of purchase**, for a period of four (4) years against defects in materials, parts or workmanship. GREENWORKS™, at its own discretion will repair or replace any and all parts found to be defective, through normal use, free of charge to the customer. This warranty is valid only for units which have been used for personal use that have not been hired or rented for industrial/commercial use, and that have been maintained in accordance with the instructions in the owners' manual supplied with the product from new.

Battery and charger carry a two (2) year warranty against defects in workmanship and materials. Batteries must be charged in accordance with the operator's manuals directions and regulations in order to be valid.

ITEMS NOT COVERED BY WARRANTY:

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

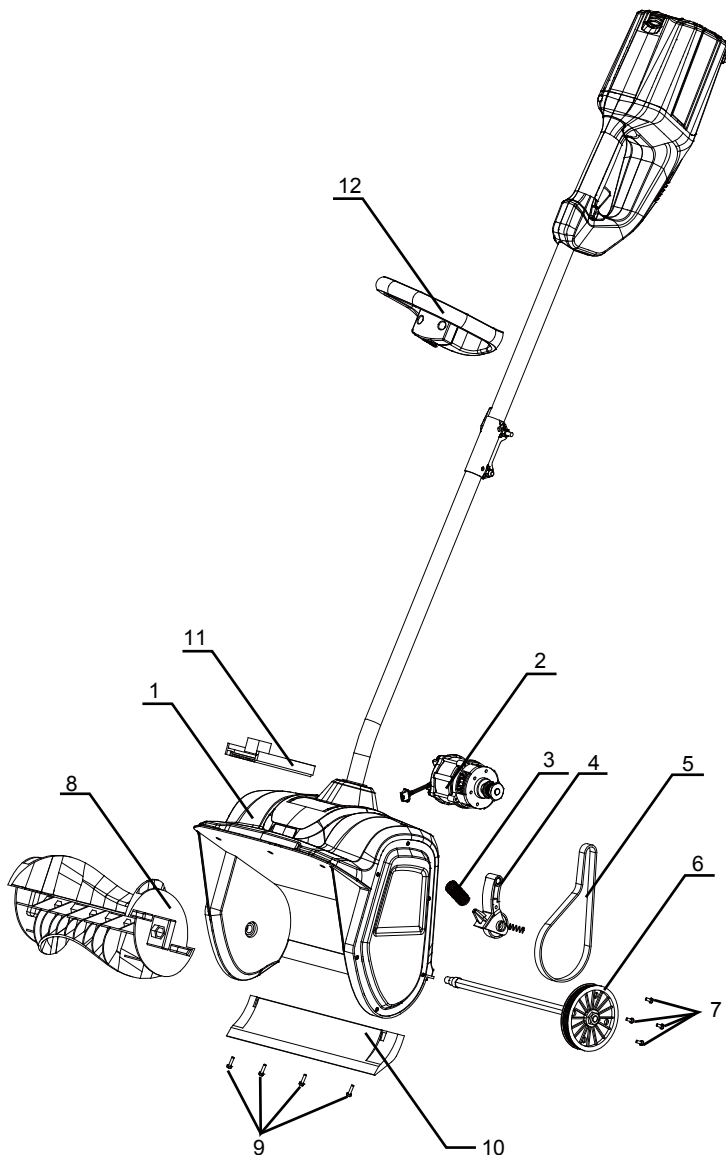
GREENWORKS HELPLINE (1(855)345-3934):

Warranty service is available by calling our toll-free helpline, at **1(855)345-3934**.

TRANSPORTATION CHARGES:

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

ASSEMBLY PARTS EXPLODED VIEW



FULL ASSEMBLY PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	311101468	Snow thrower main body	1
2	311111468	Motor assy	1
3	3390198	Belt tensioner spring	1
4	311121468	Belt tensioner	1
5	329011468	Belt	1
6	311131468	Impeller shaft assy	1
7	3220401	Screw	1
8	341031468	Impeller	1
9	32205877	Screw	1
10	341041468	Scraper	1
11	311141468	PCB board assy	1
12	311031468	Auxiliary handle assy	1



TOLL-FREE HELPLINE: 1(855)345-3934

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