ENGLISH - INSTRUCTION MANUAL

BRUSHLESS SNOW BLOWER



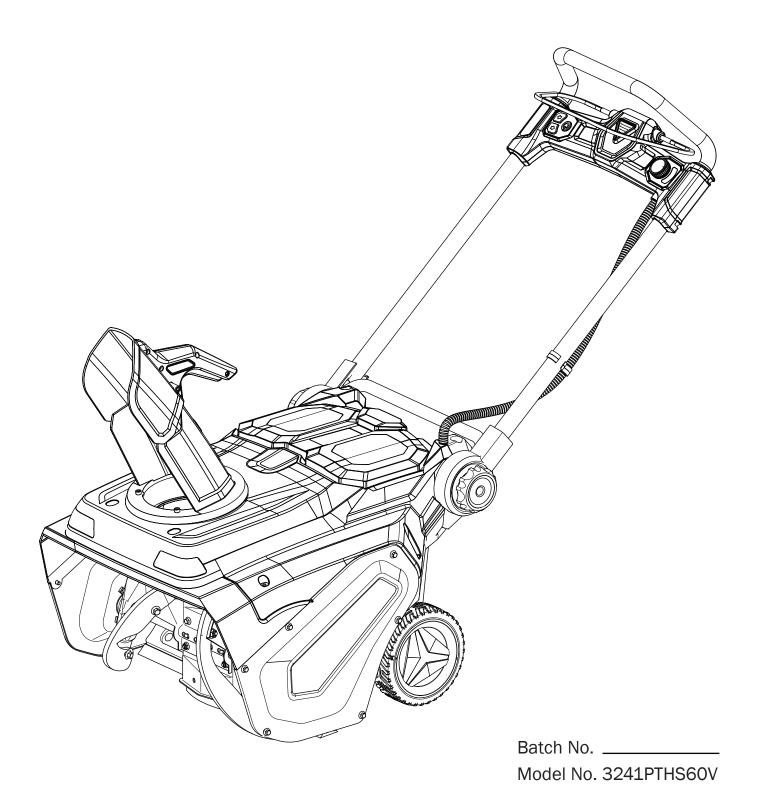


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Conventions used in this manual



This indicates a hazardous situation, which, if not avoided, could result in death or serious injury

A CAUTION

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

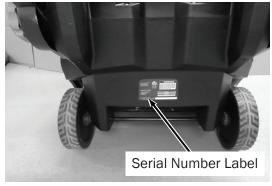


Figure 1

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label (Figure 1). An Order Number is used to check and maintain your order history and is located on your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

ProTech reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

Chapter 1: General Safety Rules

A WARNING

Read this safety & operating Instructions manual before you use the ProTech 62V Snow Blower. Become familiar with the operation and service recommendations to ensure the best performance from your machine.

Labels

Your ProTech 62V Snow Blower carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your Blower as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.







Protecting Yourself and Those Around You

MARNING

This is a high-powered machine, with moving parts operating with high energy. You must operate the machine safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when using this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Always wear protective goggles or safety glasses with side shields while using the SNOW BLOWER to protect your eyes from possible thrown debris.
- Avoid wearing loose clothing or jewelry, which can catch on moving parts.
- We recommend wearing gloves while using the SNOW BLOWER. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Wear shoes with non-slip treads when using your SNOW BLOWER. If you have safety shoes, we recommend wearing them. Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Keep bystanders at least 23 meters away from your work area at all times. Stop the Auger when another person or pet approaches.

General Safety

A WARNING

Operating this SNOW BLOWER safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this SNOW BLOWER:

- Your SNOW BLOWER is a powerful tool, not a plaything. Exercise extreme caution at all times. The
 machine is designed to blow snow. Do not use it for any other purpose.
- Know how to stop the SNOW BLOWER quickly; see "stopping the Auger" in chapter 3.
- Wear winter tread boots designed for snow and ice traction to avoid slipping or falling.
- See manufacturer's instructions for proper operation and installation of accessories.
- Never use the machine without ensuring that all guards and shields are in place.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the SNOW BLOWER. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your warranty.
- Allow only one person to operate the SNOW BLOWER at any time.
- If the machine should start making an unusual noise or vibration, shut down the motor and remove the battery to prevent accidental starting, then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair, and/or replace as necessary.
- Never tamper with safety devices. Check their proper operation regularly.
- Before performing any maintenance or inspection procedure on the SNOW BLOWER, stop the Auger and remove the Battery, to prevent accidental starting.
- Never allow people who are unfamiliar with these instructions to use the SNOW BLOWER. Allow only
 responsible individuals who are familiar with these rules of safe operation to use your machine.
- Never overload or attempt to use the SNOW BLOWER beyond the manufacturer's recommendation.
 Personal injury or damage to the machine could result.
- While using the SNOW BLOWER, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.
- Never operate the machine when under the influence of alcohol, drugs, or medication.
- Stay alert for hidden hazards or traffic.
- Keep all nuts and bolts tight and keep the equipment in good operating condition.

Safety for Children and Pets

A WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the snow blowing activity. Never assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 23 meter the working area and ensure they are under the watchful care
 of a responsible adult.
- Be alert and turn the machine off if children or pets enter the work area.
- Never allow children to operate the SNOW BLOWER.

Handling the Battery Pack and Charger Safely

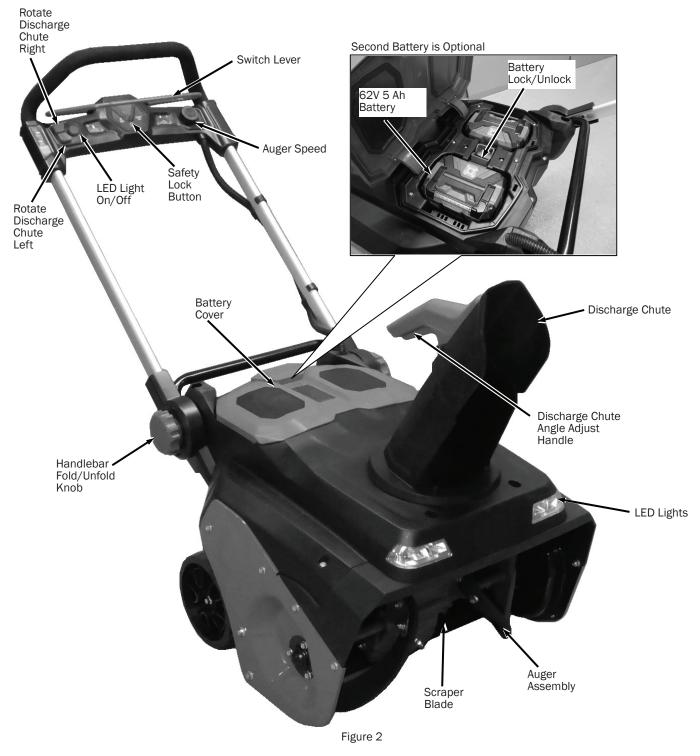
M WARNING

- Always charge the Battery Pack indoors, never charge it the snow, rain or in wet conditions.
- Use only the ProTech 62V Charger with ProTech 62V Battery Packs. Do not use the ProTech 62V Charger with Battery Packs from other manufacturers. Use of a different Charger may cause a fire or explosion.
- Never attempt to alter or open the Battery Pack or Charger. There are no customer serviceable parts inside.
- Use normal household voltage (230 volts) when charging the Battery Pack. Plug the Charger Power Supply directly into the electrical outlet.
- Exercise care in handling the Battery Pack in order not to short-circuit it with conducting materials such as rings, bracelets, and keys. When short-circuited, the Battery Pack or conductor may overheat and cause burns.
- Electrolyte leakage from the Battery Pack can be harmful causing serious chemical burns if on the skin or in the eyes. Remove contaminated clothing and wash skin with soap and water. If electrolyte gets in your eyes, flush with cold water for at least 15 minutes and seek medical attention.
- Inhalation of vapors from a ruptured Battery Pack can cause respiratory irritation. In case of Inhalation of fumes get fresh air and seek medical attention.
- Never dispose of the Battery Pack in a fire, as the Battery Pack may explode.
- Never open or mutilate the Battery Pack; released materials are flammable.
- If fire or explosion occurs, do not breathe the fumes. A burning Battery Pack will create toxic fumes. Fire fighters should use self-contained breathing apparatus.
- NEVER USE WATER on a burning Battery. If possible, separate the Battery Pack from other flammable
 materials and use ABC rated fire extinguishers. Sand may be used to smother the fire if a fire extinguisher
 is not available. Special labeling on the packaging is required because the Batteries are considered
 hazardous materials. Check with airlines before trying to check Lithium batteries with your baggage. New
 regulations are being considered that may restrict packaging and shipping of these Batteries as well as
 tools with Batteries installed.
- Please dispose of your used Battery Packs responsibly by recycling them, never throw away used Battery Packs in your household trash. Call your local Solid Waste Management District or your local waste handler to locate the collection site nearest you. Some collection sites recycle Battery Packs year-round; others collect them periodically.

Chapter 2: Setting Up the ProTech 62V Snow Blower

It may be helpful to familiarize yourself with the controls and features of your ProTech 62V Snow Blower as shown in Figure 2 before beginning these procedures.

ProTech 62V Snow Blower Controls and Features



Specifications

Model Number	SB11122XEN
Clearing Width	22" (558mm)
Max Clearing Height	12" (300mm)
Max Throwing Distance	9 meter
Operating Voltage (V)	62
Battery	41424 (5 Ah) one battery Included, second Battery Optional
Charger	41422 (5 Ah) charger included
Stages	Single Stage
Auger	2 Rubber Blades
Chute Rotation	Electric rotation with push buttons on the operator panel
Chute Discharge Angle	4 Positions, changed manually at top of chute
Motor Power	2800 W brushless motor
Number of Batteries	1 Battery shipped with machine. Can purchase a second Battery for extended runtime
Runtime	Light Fluffy Snow - One 5Ah Battery; up to 30 Min. Two 5Ah batteries ; up to 1 Hour
Wheels	Two 6"x2" plastic wheels
Collapsible	Yes; handlebars can fold down on top of machine
Other Features	Variable auger speed; LED headlights;
Dimensions	48" Long x 22" Wide x 39" High
Weight	62lbs (Tool Only); 69lbs (Tool W/ battery installed); 76lbs (Tool W/ two batteries installed)



Figure 3

Charge the Battery Pack before your first use

NOTICE

- Make sure the Charger Power Supply is plugged into a normal household voltage, 230volts, 50Hz, AC only.
- You should operate the Battery Charger in a dry place with temperatures between 50°F (10°C) and +100°F (+37.8°C). Operating above +100 °F can cause Battery Pack leakage, rust, or degradation of the Battery Pack performance.

The ProTech 62V Snow Blower uses sealed, Lithium-Ion Battery Packs. You MUST charge the Battery Packs for at least 90 minutes before you use the Blower for the first time. If you do not charge them before using the Snow Blower, the Battery Pack's charging capacity may decrease

- Connect the charger to a 230 AC outlet. When the Battery is not installed (no load condition): The Red LED will be lit. Insert the Battery into the Charger (Figure 3). Under normal charging
- 2. the
 - Green LED will Blink.
- 3. When the Battery is fully charged, the Green LED will remain light,
- 4. indicating that charging is complete.
 Unplug the Charger from the Outlet and remove the Battery.

Assembly

Parts Supplied:

- Snow Blower Power Unit
- Discharge Chute
- 62V 5Ah Battery
- 5Ah Charger
- Four Screws
- Allen Wrench

Unfolding the Handlebar Assembly

- 1. Position the Snow Blower on a flat clean surface.
- 2. Lift the Handlebar Assembly up and back to the Operating Position (Figure 4.)

Note: The Rotating Knobs on the Handlebar should be loose from the Factory. If they are not loose, rotate them in a counterclockwise direction to loosen.

3. Secure the Handlebar into position by turning the Rotating Knob in the clockwise direction (Figure 5).

Installing the Discharge Deflector

- Allen Wrench (provided)
 - 1. Position the Flange of the Discharge Chute onto the Power Unit and align the holes in the Chute with the holes in the Power Unit (Figure 6).
 - 2. Secure the Discharge Chute using the three Screws and Allen Wrench that came with the machine.

Installing the Battery

1. Open the Battery Cover and insert the Battery into one of the openings with the Battery Contacts facing the Contacts in the Housing (Figure 6).

Note: If you are installing only the one Battery that is included with Figure 6 the Snow Blower, either of the two spaces can be used.

- 2. Push the Battery down until there is a "click" indicating the Battery is fully installed and locked in by the Latch. The Battery Indicator Light will illuminate momentarily.
- 3. If you have purchased a second Battery, it can be installed in the opposite opening for longer runtimes.

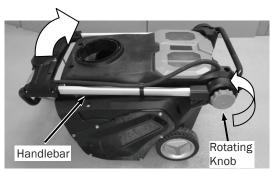


Figure 4

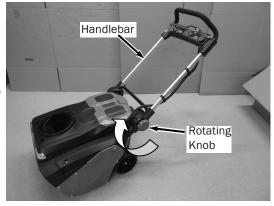
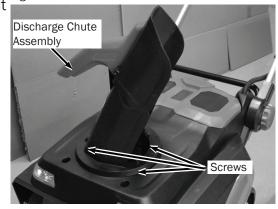


Figure 5



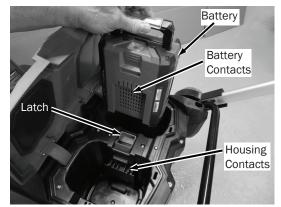


Figure 7

Chapter 3: Operating the ProTech 62V Snow Blower

It may be helpful to better familiarize yourself with the features of your Snow Blower by reviewing Figure 2 in Chapter 2 before beginning the steps outlined in this chapter.

A WARNING

Read and understand all warnings listed in "Chapter 2 General Safety Rules" before operating this Snow Blower.

Your Snow Blower is shipped with one ProTech 62V, 5Ah Battery. You may purchase another ProTech 62, 5Ah Battery for longer run times.

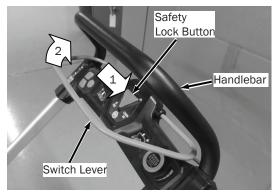


Figure 8

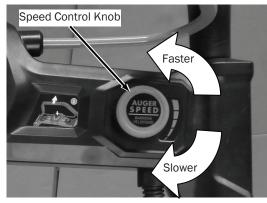


Figure 9

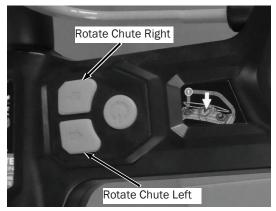


Figure 10

Starting the Auger

1. Push and hold the Safety Lock Button as you pull the Switch Lever to the Handlebar (Figure 8). The Motor will start and turn the Auger.

Note: The Motor will only turn on if the correct sequence of pushing the Safety Lock Button first and Switch Lever second is followed.

Stopping the Auger

1. Release the Switch Lever fully to stop the Auger.

Adjusting the Auger Speed

The Auger Speed can be adjusted to match the conditions you are working in. The lower speeds can also extend Battery runtime. Slower speeds move less snow and will not throw it as far.

- 1. Start the Auger (Figure 10).
- 2. Rotate the Speed Control Knob counterclockwise to increase Auger speed (Figure 9).
- 3. Rotate the Speed Control Knob clockwise to decrease Auger speed.

A WARNING

Never aim the Discharge Chute at people, animals, or any objects such as cars or buildings. Thrown debris can cause damage or serious injury.

Changing Direction and Height of Discharge

The Chute Assembly can be rotated 180 degrees side to side by a push of a button to direct the snow where desired.

- 1. To rotate the Chute Assembly to the right, press the upper Button (Figure 10).
- 2. To rotate the Chute Assembly to the left, press the lower Button.

LED Headlight Operation

- 1. Push the LED Headlight Button to turn the Headlights on (Figure 11).
- 2. Push the LED Headlight Button again to turn the Headlights off.

Operating Tips

- Always check the area for toys, shovels, ice chunks, or any other objects that might get caught in the Auger before operating the
- Snow Blower.

Discharge the snow in the same direction that the wind is blowing if possible to prevent snow from being blown back at you already cleared areas.

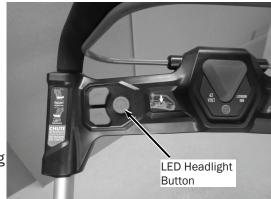


Figure 11

Chapter 4: Maintaining the ProTech 62V Snow Blower

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to following information for maintenance procedures.



Before performing any maintenance procedure or inspection on the Snow Blower, remove the Battery/s from the machine to prevent accidental starting of the Motor.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 50 HOURS
Check Battery Power*	A	
Check General Equipment Condition	A	
Clear Auger of Snow and Ice	A	
Check Auger Rubber Blades	A	
Check Scraper Blade for Wear	A	
Check Auger Drive Belt		A

Replacing the Scraper Bar Tools Needed:

- 13mm Wrench
- 1. Tip the machine back onto the Handlebars.
- 2. Remove the four Carriage Bolts, Locknuts, and Flat Washers that secure the Scraper Blade (Figure 13).
- 3. Remove the Scraper Blade.
- 4. Install the new Scraper Blade in the reverse order.

Note: Ensure the angle of the Scraper Blade is facing down when installed. Replacing the Auger Belt

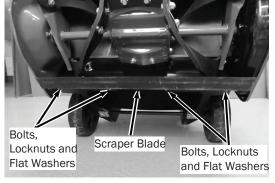


Figure 13

Replacing the Auger Belt

Tools and Supplies Needed:

- Two 10mm Wrenches
- Gloves
- Needle Nose Locking Pliers
- 1. Tip the machine back onto the Handlebars.
- 2. Remove the two Bolts and Locknuts from the upper left side of the Belt Cover (Figure 14).
- 3. Remove the remaining four Bolts from the Belt Cover and remove the Belt Cover.

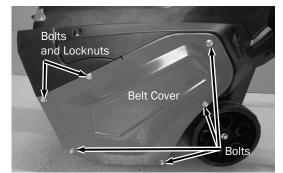


Figure 14

- 4. Remove the Tension Spring from the Tensioner Bracket using Needle Nose Locking Pliers (Figure 15).
- 5. Remove the Belt from the Pulleys.
- 6. Install the new Belt.
- 7. Install the Spring.
- 8. Install the Belt Cover.

Note: The Two Belt Cover Bolts at the upper left that use Locknuts are longer than the other four Bolts.

Checking Battery Charge

Check the charge percentage of your 62V Battery by pushing the Indicator Button on the front of the Battery. The number of Green LED indicators will tell you the % of power left in the battery. 1 LED = 25%, 2 LEDs = 50%, 3 LEDs = 75% and 4 LEDs = 100%.

If you press the Indicator Button and only the fourth LED flashes, the Battery needs charging.

Charger indicator Lights (Figure 17)

Red LED Lit, green LED is not lit; The Charger is plugged in but the Battery is not installed (no load condition).

Green LED blinks, red LED is not lit; Battery is charging normally.

The green LED is on, red LED is not lit; Battery is fully charged.

Green LED is not lit, red LED blinks; There is a fault with the Battery or Charger. Remove the Battery from the Charger and wait about 30 minutes, then reinsert the Battery into the Charger.

If the Battery does not hold its charge for very long under normal conditions or it simply won't hold a charge, then replace it.

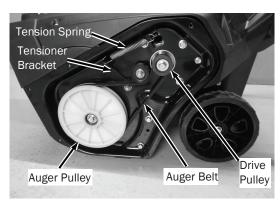


Figure 15



Figure 17

Additional Battery Pack and Charger information

The Battery Pack should not leak, regardless of the position in which it is stored. Read "Handling the Battery Safely" in Chapter 1 for additional information. The Battery Pack is completely maintenance free. With all rechargeable Batteries, after years of use, they will eventually need replacement.

A CAUTION

Use only the ProTech 62V 5Ah Charger with ProTech 62V 5Ah Battery Packs. Do not try to use the ProTech 62V Charger with Battery Packs from other manufacturers.

NOTICE

- Make sure the Charger Power Supply is plugged into a normal household voltage, 230volts, 50Hz, AC only.
- You should operate the Battery Charger in a dry place with temperatures between 10°C and +37.8°C.
 Operating above 40°C can cause Battery Pack leakage, rust, or degradation of the Battery Pack perfor-
- mance.
 - Disconnect Charger Power Supply from the household voltage power when not in use to prevent damage to the Charger
- during a power surge.
 - Periodically inspect the Cord on the Charger unit for damage. If damage occurs, do not use the Charger until you have
 - replaced or repaired the Cord. Do not abuse the Cord. Never carry the Charger by the Cord. Always pull the plug and not the Cord when disconnecting the Power Supply from the electrical outlet (wall outlet) and
- from the Charger. When using an
- extension Cord with your Charger, use a heavy-duty extension Cord of a type 'suitable for outdoor use' (although you should never charge the Battery Pack in the open outdoors).
 - The Battery Pack requires 2-3 charging and discharging cycles before reaching full charge ability.
 - A Battery Pack may last much longer if you charge it as soon as it starts to lose power and not let it com-
- pletely discharge.
 - Recharge the Battery Pack as soon as the blowing power of your ProTech Snowe Blower is no longer effective. This would be a good time to have a spare Battery Pack ready to go. Recharge the Battery Pack for up to 75 minutes or until fully charged and remove it from the Charger.
 - A good time to consider purchasing a replacement Battery Pack is when it loses its power quickly.

Recycling a Used Battery

NOTICE

Please dispose of used batteries responsibly, according to your local hazardous materials regulations. Never throw away used batteries in your household trash.

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions.



Before performing any maintenance procedure or inspection on the Blower, release the Blade Engage Wire Trigger to shut down the Motor and then remove the Battery and Safety Key.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
The Motor fails to start with the Battery installed, and the Switch Lever pulled to the Handlebar.	 ⇒ Check that you installed the Battery correctly and that the Battery is fully charged. All four LEDs of the Battery Test Button should light up when pressed. If not, replace with a fully charged ⇒ Battery or recharge the Battery. Make sure you follow the correct starting sequence of pushing the Safety Lock Button in first and then pulling the Lever to the Handlebar. ⇒ Possibly the Auger is obstructed. Remove the Battery and check the Auger to make sure it spins freely and is unobstructed.
The Battery Pack will not charge.	 ⇒ Check to see if the Battery Pack is all the way into the Charger. Insert the Battery Pack until the Green LED Light illuminates. ⇒ The Charger Power Cord is not plugged into a working outlet. Check the outlet with a lamp or other appliance. ⇒ Check to see if the outlet that you are using for the Charger Power Supply is controlled from a wall switch. ⇒ The surrounding air temperature is too hot or too cold. Move Charger and Battery Pack to a location where the surrounding air temperature is between 10°C and +37.8°C.
The Snow Blower runs slow.	 ⇒ The Battery Pack was probably not at full charge prior to using. Charge the Battery Pack, if necessary. ⇒ Check the Auger for debris. ⇒ The snow is too heavy or thick for the speed you are going or the speed set on the dial.
The Motor doesn't have much power when you use the Snow Blower for the first time.	⇒ You will initially need to charge the Battery Pack before use. The Battery Pack may need to be cycled through a Charge and Discharge 2-3 times to achieve full charge potential.
The Battery loses its charge quickly.	 ⇒ The Battery Pack was probably not at full charge prior to using. Charge the Battery Pack, if necessary. ⇒ The Battery Pack may be getting old. After some time, you will need to replace the Battery Pack.
The Auger stops while using (for reasons other than releasing the Switch Lever).	 ⇒ The Battery Power is depleted. Recharge the Battery or install a fully charged Battery. ⇒ The Auger is probably clogged with debris. Remove the Battery and clean if necessary. ⇒ If the Blower bogs down or stalls in heavy snow, raise the Auger height, walk more slowly, or clear a narrower swath.
Excessive vibration and noise	 ⇒ The Auger Blades may be loose or damaged. Remove the Battery and check that the Auger Blades are securely attached. ⇒ Some debris may be stuck in the Auger causing it to be unbalanced. Remove the Battery and remove any debris.

Daily Checklist for the ProTech 62V Snow Blower

A WARNING

Before performing any maintenance procedure or inspection on the Blower, release the Blade Engage Wire Trigger to shut down the Motor and then remove the Battery and Safety Key.

To help maintain your ProTech 62V Snow Blower for optimum performance, we recommend you follow this checklist each time

you use your machine.

- [] BATTERY: Make sure the Battery has a full charge.
- [] AUGER BLADES: Check the Blades for wear or damage.
- [] SNOW BLOWER: Check the general condition of the Snow Blower, e.g.; nuts, bolts, welds, etc.
- [] CLEANING: Check if there is any buildup of Debris on the Snow Blower especially inside the Auger area. Clean as needed.

End of Season and Storage

A WARNING

Before performing any maintenance procedure or inspection on the Blower, release the Blade Engage Wire Trigger to shut down the Motor and then remove the Battery and Safety Key.

- When Snow Blower is to be stored, remove all debris from the machine.
- At the end of the season, remove the Battery from the machine and follow the charging procedures as outlined in Chapter 4. Once charging is complete, remove the Battery from the Charger and unplug the Charger from your standard 230-Volt wall outlet. Store the Battery in a DRY environment with temperatures between -15°C and +40°C unplugged from the Charger and separate from the Snow Blower. Every one to two months thereafter and just prior to the first use of the season, you should completely charge the Battery again for optimal performance and life.
- Store the Blower in a dry environment. Water can damage the Snow Blower and Battery.
- Do not store the Battery close to a source of heat, sparks, or open flame.
- Store the Battery away from children and animals.
- Store your Snow Blower indoors and cover it with a suitable protective cover to give protection from dust and dirt.
 Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause some Snow Blower parts to rust.