greenworks pro

60V Cordless String Trimmer ST60L210



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

www.GreenWorksTools.com





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PRODUCT SPECIFICATIONS

60V CORDLESS STRING TRIMMER

Type	Cordless, battery powered
Motor	60V Brushless
Cutting Width	14 in. /16 in. (35.6 cm / 40.6 cm)
Line Diameter	Nylon / 0.080" (2 mm)
Speed	6000 / 7000 (±10%)RPM
Feed Type	Bump Feed
Weight (without battery)	7.1 lbs (3.2 kg)





IMPORTANT SAFETY INSTRUCTIONS

A WARNING

Read and understand all instructions before using this product. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

- Use only identical manufacturer's replacement parts and accessories. Use of any other parts may create a hazard or cause product damage.
- Always wear safety glasses with side shields marked to comply with ANSI Z87.1. Everyday
 glasses have only impact resistant lenses. They are NOT safety glasses. Following this rule
 will reduce the risk of eye injury. Use face mask if operating in dusty work spaces.
- Avoid Dangerous Environment Don't expose power tools to damp or wet conditions. Water entering a power tool will increase the risk of electric shock.
- · Do not use in rain.
- Keep all bystanders, children, and pets at least 50 ft. away.
- Do not use the power tools for any job except that for which it is intended.
- Avoid Unintentional Starting Do not carry string trimmer with fingers on the switch. Be sure the battery is removed while transporting.
- Do not operate the equipment while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces.
- Don't overreach Keep proper footing and balance at all times.
- Stay alert Watch what you are doing. Use common sense. Do not operate this unit when you
 are tired, ill or under the influence of alcohol, drugs or medication.
- Always store idle power tools indoors When not in use, power tools should be stored indoors in a dry place, out of reach of children.
- Power tool maintenance Replace string head if cracked, chipped, or damaged in any way. Be sure the string head is properly installed and securely fastened. Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Inspect appliance cord periodically, and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease. Failure to do so can cause serious injury.
- Check Damaged Parts Before further use of the appliance, a guard or other part that is
 damaged should be carefully checked to determine that it will operate properly and perform its
 intended function. Check for alignment of moving parts, binding of moving parts, breakage of
 parts, damaged mountings, and any other condition that may affect its operation. A guard or
 other part that is damaged should be properly repaired or replaced by an authorized service
 center unless indicated elsewhere in this manual.
- Do not charge or operate cordless tools in damp or wet locations or in the rain. Following this
 rule will reduce the risk of electric shock.
- Remove or disconnect battery before servicing, cleaning or removing material from the gardening appliance.

IMPORTANT SAFETY INSTRUCTIONS

- Do not dispose of the batteries in a fire. The cells may explode. Check with local codes for possible special disposal instructions.
- Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
- Dress Properly Do not wear loose clothing or jewelry. They can be caught in moving parts.
 Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
- Do not add unnecessary force to your power tool It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
- 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.
- For use only with (LB60A00, LB60A03, LB60A01,LB60A02) battery. For use only with (CH60A00) charger.
- 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 a fire.
- 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.
- 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 expose a battery pack or power tools to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause explosion.

A W A R N I N G (PROPOSITION 65)

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known 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 of exposure to these chemicals varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

SAVE THESE INSTRUCTIONS

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	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
Α	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
min	Minutes	Time
\sim	Alternating Current	Type of current
===	Direct Current	Type or a characteristic of current
8	No Blade	Do not install or use any type of blade on a product or displaying this symbol.
/min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
•	Read The Operator's Manual	To reduce the risk of injury user must read and understand operator's manual before using this product.
•	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1 when operating this equipment.
A	Safety Alert	Precautions that involve your safety.
<u>\$</u>	Ricochet	Thrown objects can ricochet and result in personal injury or property damage.
Ø7 15m	Keep Bystanders Away	Keep all bystanders at least 50 ft. away.

SYMBOLS

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

SYMBOL	SIGNAL	MEANING
lack	DANGER	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
A	WARNING	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
A	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.

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. Use only identical manufacturer's replacement parts and accessories.

AWARNING

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

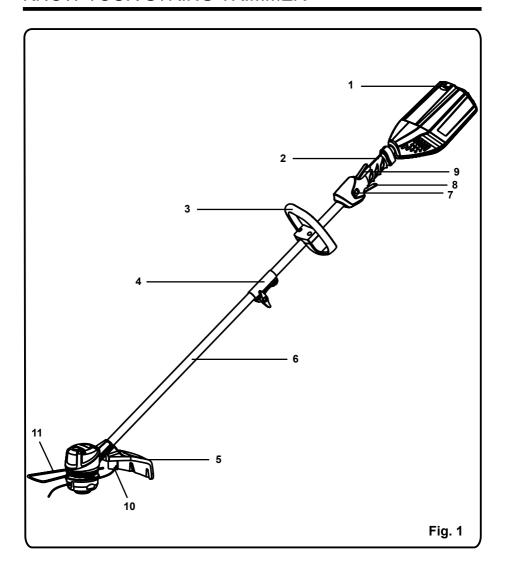
AWARNING



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 STRING TRIMMER



KNOW YOUR STRING TRIMMER

KNOW YOUR STRING TRIMMER (See Figure 1.)

The safe use of this product requires an understanding of the information on the product and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

1. BATTERY PACK LATCH

Press to release the battery pack from the tool.

2. REAR HANDLE

Ergonomic handle with overmold improves comfort and grip.

3. AUXILIARY HANDLE

The string trimmer is equipped with an auxiliary handle for ease of operation and to prevent loss of control.

4. COUPLER

The coupler connects and locks the two shafts.

5. GUARD

The trimmer includes a guard that helps protect from flying debris.

6. TRIMMER SHAFT

The trimmer shaft encloses and protects the cables between the motor and rear handle.

7. HIGH/LOW SPEED BUTTON

The high/low speed button adjusts the speed.

8. VARIABLE SPEED TRIGGER

Provides added control and precision.

9. SAFETY LOCK BUTTON

The safety lock button prevents accidental starting.

10. CUT-OFF BLADE

Adjustable steel blade on the guard keeps the cutting line at the proper cutting length.

11. REMOVEABLE EDGE GUIDE

Prevents string trimmer from damaging property while in use.

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- · Inspect the tool 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 tool.
- 1. If any parts are damaged or missing, please call 1-855-345-3934.

AWARNING

Do not use this product if any parts on the packing list are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

PACKING LIST

Part Name	Figure	Qty
String trimmer		1
Auxiliary handle		1
Guard		1
Edge guide		1
Operator's manual		1

AWARNING

If any parts are damaged or missing, do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.

AWARNING

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

A WARNING

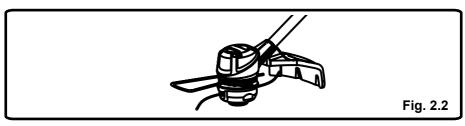
Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

ATTACHING THE EDGE GUIDE

The edge guide can limit the cutting range of the trimmer and reduce the risk of the rotating cutting line causing damage.

To use the edge guide, press the edge guide onto the trimmer head.

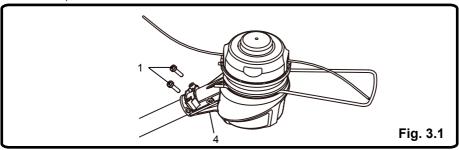




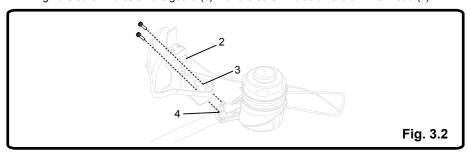
ATTACHING THE GUARD (See Figure 3.)

NOTE: Install the guard before the attachment is connected to the lower shaft.

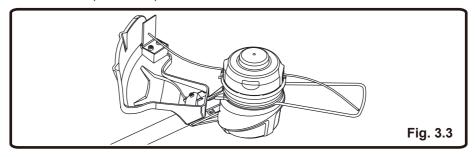
- Invert the string trimmer to access the trimmer head.
- Remove supplied screws (1) from the trimmer head (4) with a philips head screwdriver (not included).



- 3. Place the guard (2) on to the trimmer head.
- 4. Align the screw holes on the guard (3) with the screw holes on the trimmer head (4)



5. Insert the screws into the trimmer head, fastening the guard in place using a philips head screwdriver (not included).



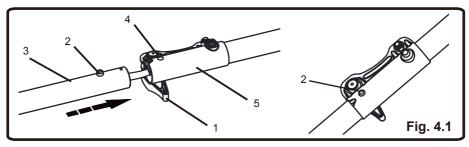
INSTALLING THE UPPER SHAFT TO THE LOWER SHAFT (See Figure 4.)

A WARNING

Never install, remove, or adjust any attachment while string trimmer is running. Failure to stop the motor can cause serious personal injury.

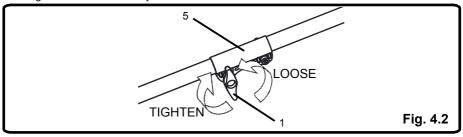
The attachment connects to the power head by means of a coupler device.

- 1. Set the unit on a flat, level surface.
- 2. Loosen the knob (1) on the coupler (5).
- 3. Push in the release button (2) located on the lower shaft (3). Align the release button with the positioning hole (4) and slide the two shafts together. Rotate the lower shaft until the button locks into the positioning hole.



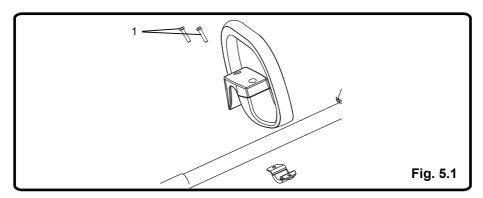
NOTE: If the button does not release completely in the positioning hole, the shafts are not locked into place. Slightly rotate from side to side until the button is locked into place.

4. Tighten the knob securely.

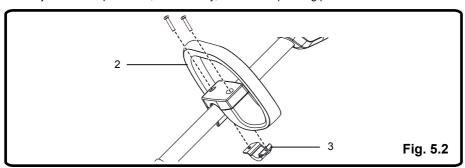


ATTACHING THE AUXILIARY HANDLE (See Figure 5.)

 Loosen the two screws (1) in the handle with a philips screwdriver (not included) and remove the screws from the handle.



- 2. Attach the auxiliary handle (2) and lower clamp (3) on the shaft.
- 3. Adjust handle up or down, if necessary, to desired operating position.



4. Insert and tighten the two screws so that the handle cannot be rotated on the shaft.

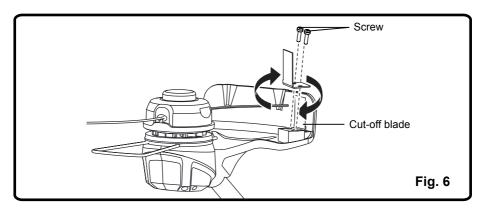
ASSEMBLY

ADJUSTING THE CUTTING SWATH (See Figure 6.)

This trimmer is equipped with a line cut-off blade on the guard. The line cut off blade continuously trims the line to ensure a consistent and efficient cut diameter. Advance line whenever you hear the engine running faster than normal, or when trimming efficiency diminishes. This will maintain best performance and keep line long enough to advance properly.

This trimmer is currently set at the 14 in. cutting swath. To adjust to a cutting swath of 16 in.:

- 1. Remove the battery pack.
- 2. Remove the blade screws then rotate the line cut-off blade 180°.
- 3. Tighten the blade screw.



OPERATION

A WARNING

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

AWARNING

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.

AWARNING

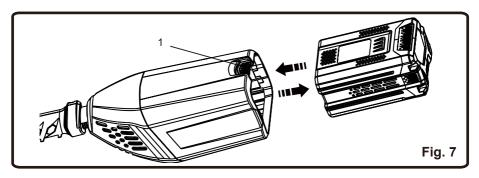
This string trimmer is not meant to be used with brush cutter attachments. Use of a brush cutter attachment could cause serious personal injuries or property damage.

INSTALLING THE BATTERY PACK (See Figure 7.)

- · Align the battery with the battery opening.
- Insert battery pack into tool until an audible "click" is heard.

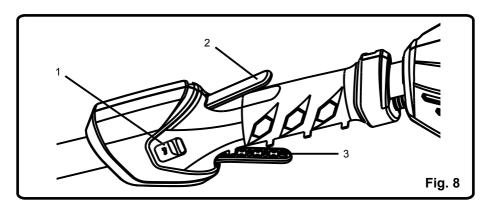
REMOVING THE BATTERY PACK (See Figure 7.)

 Depress the battery release button (1) in the back of the battery pack and pull battery pack out of tool.



STARTING AND STOPPING THE TRIMMER (See Figure 8.)

- Slide the speed switch (1) to the desired operating speed. Slide the speed switch to position 1 for low speed or position 2 for high speed.
- Press the lock-off lever (2). Squeeze the switch trigger (3) to start.
- · Release the switch trigger to stop.



OPERATING THE TRIMMER (See Figure 9.)

A WARNING

Always hold the string trimmer away from the body keeping clearance between the body and the string trimmer. Any contact with the string trimmer cutting head while operating can result in serious personal injury.

Follow these tips when using the string trimmer:

- Hold the trimmer with your right hand on the rear handle and your left hand on the auxiliary handle.
- Keep a firm grip with both hands while in operation.
- Trimmer should be held at a comfortable position with the rear handle about hip height.
- Cut tall grass from the top down. This will prevent grass from wrapping around the shaft housing and string head which may cause damage from overhearing.

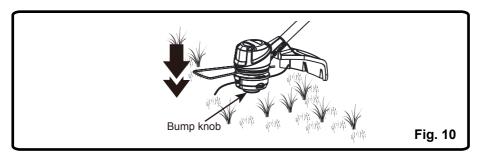
If grass becomes wrapped around the string head:

- · Remove the battery pack.
- · Remove the grass.



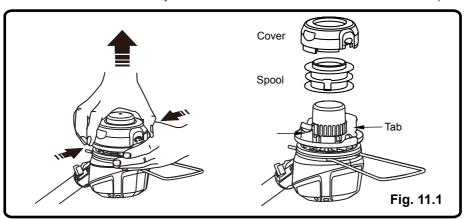
ADVANCING LINE (See Figure 10.)

While the string trimmer is operating, the cutting line gets worn down and becomes shorter. This trimmer is equipped with bump feed line advancement, which advances additional line once the head is bumped on the ground while rotating. The cutting blade will cut the line to keep an accurate cutting swath.



REPLACING THE LINE (See Figure 11.)

1. Press the tabs simultaneously on the side of the trimmer head and remove cover and spool.



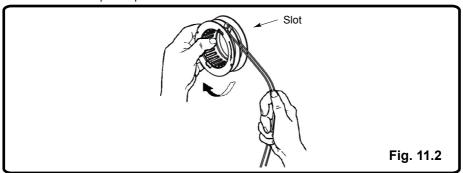
- 2. Remove any remaining line.
- Clean dirt and debris from all parts. Replace spool if it is worn or damaged.
- Replace with a pre-wound spool, or replace line using 10 feet (3 meters) of 0.080 inch (2.0 mm) diameter line.

AWARNING

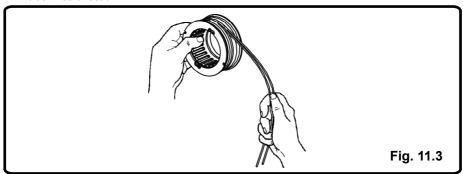
Never use wire, rope, string, etc., which can break off and become a dangerous projectile.

OPERATION

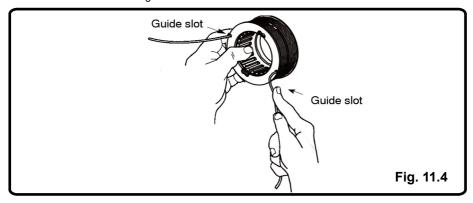
- 5. When installing new line on an existing spool, hold the spool as shown.
- 6. Bend the line at the midpoint and insert the bend into the slot in the center rim of the spool. Ensure line snaps into position in the slot.



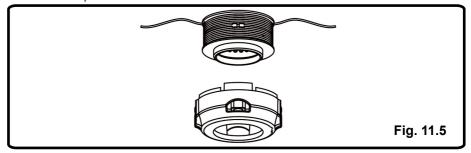
 With your finger between the lines, wrap the lines evenly and firmly around the spool in a clockwise direction.



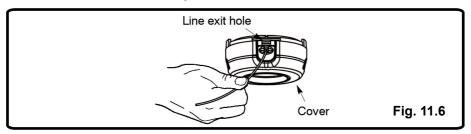
8. Position the lines in the guide slots.



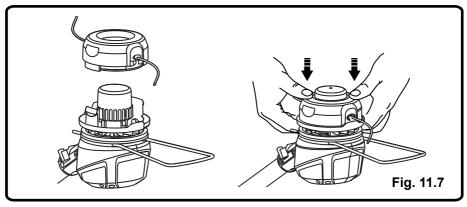
9. Place the spool in the cover as shown below.



10. Insert the ends of the lines through the line exit holes in the sides of the cover.

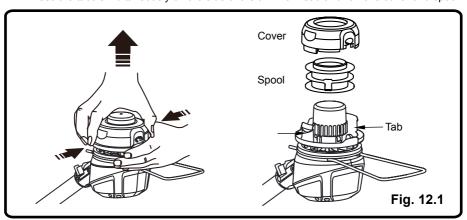


11. Reinstall the spool and cover onto the trimmer head. Push until cover snaps into place.

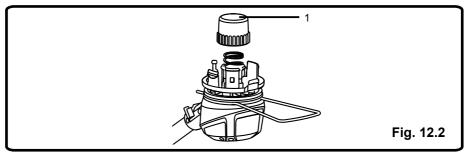


REPLACING THE BUMP KNOB (See Figure 12.)

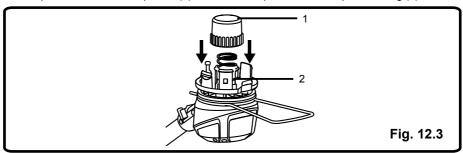
- 1. Remove the battery pack.
- 2. Press the tabs simultaneously on the side of the trimmer head and remove cover and spool.



3. While holding the bump knob (1), firmly pull it out.



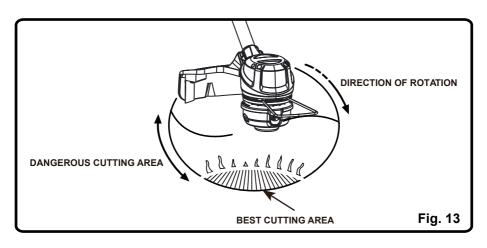
4. Replace with a new bump knob (1). Push the bump knob into the spool housing (2).



OPERATION

CUTTING TIPS (See Figure 13.)

- Keep the trimmer tilted toward the area being cut; this is the best cutting area.
- The trimmer cuts when passing the unit from right to left. This will avoid throwing debris at the operator. Avoid cutting in the dangerous area shown in figure 13.
- Use the tip of string to do the cutting; do not force string head into uncut grass.
- Wire and picket fences cause extra string wear and breakage. Stone and brick walls, curbs, and wood may wear string rapidly.
- Avoid trees and shrubs. Tree bark, wood moldings, siding, and fence posts can easily be damaged by the string.



MAINTENANCE

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, lubricant, grease, etc.

Always store the machine clean and in a dry enclosure with the battery charged.

Maintenance task	Each time the machine is used	Every two hours	Each week	After use	Every year or when required
Visual check of the tool's safety systems (distancing device, carrying eye, safety casing)	х			х	
Check the trigger safety system functions	×				
Check the sharpness of blades and sharpen if necessary	х	Х			х
Visual check of the tool (no cracks or deformation)	×	x			x
Check the battery level	x				

ENVIRONMENTALLY SAFE BATTERY DISPOSAL

The following toxic and corrosive materials are in the batteries used in this string trimmer battery pack: **Lithium-lon, a toxic material**.





A 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 lithium-ion disposal.

AWARNING

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.

TROUBLESHOOTING

Problem	Cause	Solution	
	The battery pack is not connected to the trimmer.	Attach the battery pack to the trimmer.	
String trimmer fails to start	No electrical contact between the trimmer and battery.	Remove battery check contact and reinstall the battery pack.	
when trigger is depressed.	3. The battery pack is depleted.	3. Charge the battery pack.	
	The lock-off lever and trigger are not depressed simultaneously.	Press down the lock-off lever and hold it, then depress the trigger to turn on the string trimmer.	
	The guard is not mounted on the trimmer, resulting in an overly long cutting and motor overload.	Remove the battery pack and mount the guard on the trimmer.	
	2. Heavy cutting line is used.	2. Use only with nylon cutting line 0.08" diameter or less.	
String trimmer stops while cutting.	3. The motor shaft or trimmer head is bound with grass.	3. Stop the trimmer, remove the battery, and remove the grass from the motor shaft and trimmer head.	
	4. The motor is overloaded.	4. Remove the trimmer head from the grass. The motor will recover to work as soon as the load is removed. When cutting, move the trimmer head in and out of the grass to be cut and remove no more than 8 inches of length in a single cut.	
	5. The battery pack or string trimmer is too hot.	5. Allow the battery pack to cool until the temperature drops below 158°F (70°C). Allow the trimmer to cool until the temperature drops below 284°F (140°C).	
	6. The battery pack is disconnected from the tool.	6. Re-install the battery pack.	
	7. The battery pack is depleted.	7. Charge the battery pack.	

TROUBLESHOOTING

Problem	Cause	Solution	
Lines will not	Lines are welded to themselves.	Lubricate with silicone spray.	
	Not enough line on spool.	Install more line. Refer to Line Replacement earlier in this manual.	
advance.	3. Lines are worn too short.	Pull both lines while pressing button.	
	4. Lines are tangled on spool.	Remove lines from spool and rewind. Refer to Line Replacement earlier in this manual.	
Line keeps breaking.	Trimmer used incorrectly.	Only trim with the tip of the line, avoid stones, walls and other hard objects. Feed the line regularly to maintain full cutting width.	
Grass wraps around trimmer head and motor housing. 1. Cutting tall grass at ground level		1. Cut tall grass from the top down, removing no more than 8 inches in each pass to prever wrapping.	
Line is not cutting well	The line-cutting blade on the edge of the guard has become dull.	Sharpen the line-cutting blade with a file or replace it with a new blade.	





GREENWORKS™ hereby warranties this product, to the original purchaser with **proof of purchase**, 4 year warranty 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.

ITEMS NOT COVERED BY WARRANTY:

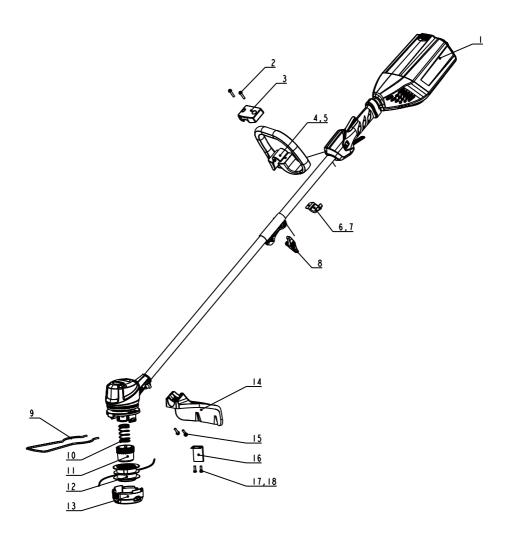
- 1. Any part that has become inoperative due to misuse, abuse, neglect, accident, improper maintenance, or alteration; or
- The unit, if it has not been operated and/or maintained in accordance with the owner's manual; or
- 3. Normal wear, except as noted below;
- 4. Routine maintenance items such as lubricants, blade sharpening;
- 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**.



PARTS LIST

Item No.	Part No.	Description	QTY
1	310011453	Bare tool assembly	1
2	32201836	Screw and washer assembly	2
3	341081468	Cover	1
4	34105836-4	Auxiliary handle	1
5	34203836	Rubber washer	1
6	33301836	Clamp	1
7	34201877	Rubber ring	1
8	341111437AB	Knob	1
9	333031453	Edge guide	1
10	332041428	Spring	1
11	341041429AB	Bump knob	1
12	311101429	Spool	1
13	311091429	Spool cover	1
14	341131453	Guard	1
15	322011429	Screw	2
16	333011429	Blade	1
17	32207319	Screw	2
18	32916131	Spring washer	2



Greenworks Tools PO Box 1238 Mooresville, NC 28115

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

Rev: 00 (08-06-16)