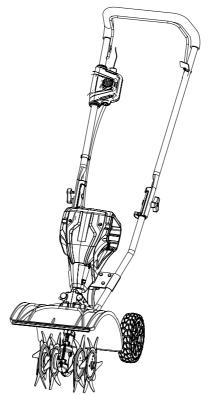


60V BURSHLESS CULTIVATOR

TL60L00





Owner's Manual

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

www.greenworkstools.com



A Read all safety rules and instructions carefully before operating this tool.

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PRODUCT SPECIFICATIONS

60V CULTIVATOR

Motor	Cordless, Battery-powered
Motor Voltage	60 V DC
No-load Speed	
Cultivating Path	
Tine Speed	up to 1,700 strikes per minute
Approximate Weight (without battery)	24.7 lbs. (11.2 kg)
Charge Time	30 minutes
Optimum Charging Temperature	





GENERAL SAFETY RULES

A WARNING

When using electric gardening appliances, basic safty precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following.

A WARNING

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

READ THESE INSTRUCTIONS BEFORE USING CULTIVATOR

- Read the operator's manual carefully, and thoroughly familiarize yourself with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Do not operate cultivator in the presence of flammable liquids, gases, or dust. Cultivators create sparks which may ignite the dust or fumes.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Avoid Dangerous Environments Do not expose to rain or use cultivator in damp or wet locations. Water entering a cultivator will increase the risk of electric shock.
- Store indoors, and do not expose to rain or water, avoid direct sun light.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Always wear safety glasses with side shields that comply with ANSI Z87 .—1 Everyday glasses
 may not protect against impacts. They are NOT safety glasses. Following this rule will reduce the
 risk of eye injury. Use a face mask if operation is dusty.
- Dress Properly Do not wear loose clothing or jewelry which 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. Secure long hair so it is above shoulder level to
 prevent entanglement in any moving parts. Wear heavy long pants, long sleeves, boots, and
 gloves. Avoid loose garments or jewelry that could get caught in moving parts of the machine or
 its motor.
- Do not force cultivator Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- 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.
- Do not operate the cultivator while under the influence of alcohol or drugs.
- Keep hands and feet away from tines.
- Do not overreach or extend past stable footing when using the cultivator.
- Avoid Unintentional Starting Do not carry the cultivator the cultivator with your finger on the trigger. Be sure switch is off when inserting the battery.
- Never pick up or carry the cultivator while the tines are turning or the motor is running.

GENERAL SAFETY RULES

- Keep cultivator in good working condition. Check all nuts, bolts, and screws at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Keep the unit free of grass, leaves, or grease to reduce the chance of a fire hazard.
- Do not use cultivator if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Never spray water directly into the motor compartment of the cultivator.
- Service on the cultivator must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- Use only identical replacement parts when servicing the cultivator. Use of unauthorized parts
 may create a risk of serious injury to the user or damage to the product.

CHILD SAFETY

Tragic accidents can occur if the operator is not aware of the presence of children.

- · Keep children out of the working area and under the watchful care of a responsible adult.
- Do not allow children under the age of 14 to operate this cultivator. Children who are 14 years
 of age and older must read and understand the operating instructions and safety rules in this
 manual and must be trained and supervised by a parent.
- Stay alert, and turn the cultivator off if a child or any other person enters the working area.
- · Look behind and down for small children before and while moving backwards.
- Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your view of a child who may run into the path of the cultivator.

A WARNING (PROPOSITION 65)

This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

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.

- Do not use near underground electric cables, telephone lines, pipes or hoses. If in doubt, contact your utility or telephone company to locate underground services.
- If the unit strikes a foreign object, stop the motor, diaconnecting the battery, thoroughly inspect the machine for any damage, and repair the damage before restarting and operating the machine.
- Do not overload the machine capacity by cultivating too deep in a single pass or at too fast a rate.
- Stay alert. Watch what you are doing. Use common sense. Do not operate cultivator when you
 are tired, ill, or upset.

SPECIFIC SAFETY RULES

- Be aware that the equipment may unexpectedly bounce upward or jump forward if the tines should strike buried obstacles such as large stones, roots or stumps.
- · Wear hearing protection.
- Ensure that people and pets are at least 50 ft. (15 m) away from cultivator while in use.
- Replace worn or damaged parts only with identical replacement parts.
- Ensure that work area is free of wet spots or excessive quantities of stone.
- Start the cultivator carefully according to instructions from a normal operating position and with feet well away from the tines. Do not force cultivator. It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
- Remove the battery from unit before unclogging the tines and when making any repairs, adjustments, or inspections.
- · Never operate the equipment on a slope.
- · Use extreme caution when pulling the machine toward you.
- Store Idle Appliances Indoors When not in use, appliances should be stored indoors in a dry and high or locked-up place, out of the reach of children.
- Maintain Appliance with Care Keep tines clean for best performance and to reduce the risk
 of injury. Follow instructions for lubrication and changing accessories. Inspect cultivator cord
 periodically. If damaged have it replaced. Keep handles dry, clean, and free from grease and oil.
- Keep Children Away All visitors and bystanders should be kept at a distance of at least 50 ft. from work area.
- Do not use appliance for any job except that for which it is intended.
- Don't grasp the exposed cutting blades or cutting edges when picking up or holding the appliance.
- Check damaged parts. Before further use of this cultivator, check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this manual.
- Use only with LB60A00/LB60A01/LB60A02/LB60A03 battery and CH60A00 charger.
- Do not charge batteries in rain or in wet locations.
- Remove or disconnect battery before servicing, cleaning or removing material from the power tools.
- Do not dispose of batteries in fire, the cell may explode, check with local codes for possible special disposal instructions.
- Do not open or break the battery. The 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, earrings and bracelets. The battery is made with conductive materials which may overheat and cause burns if contact is made.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this product.

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	
А	Amperes	Current	
Hz	Hertz	Frequency (cycles per second)	
W	Watt	Power	
min	Minutes	Time	
	Direct Current	Type or a characteristic of current	
	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.	
A	Safety Alert	Precautions that involve your safety.	
100 160 p	Keep Bystanders Away	Keep all bystanders at least 50 ft. away.	
0	Eye Protection	Always wear safety goggles or safety glasses with side shields and, as necessary, a full face shield when operating this product.	
	Ricochet	Thrown objects can ricochet and result in personal injury or property damage.	
	Cutting Hazard	Keep feet and hands away from rotating tines.	
	Keep hands and feet away	Failure to keep your hands away from the blade will result in serious personal injury.	

SYMBOLS

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

SYMBOL	SIGNAL	MEANING	
A	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. When servicing, use only identical replacement parts.

A 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.

A WARNING

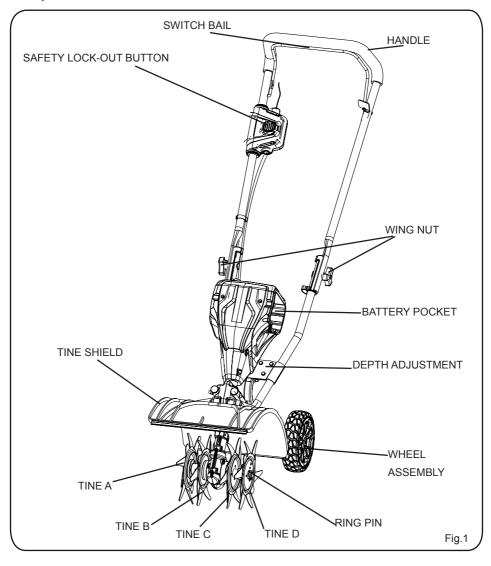


The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields, and when needed, a full face shield. A Wide Vision Safety Mask is recommended 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 CULTIVATOR

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



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 tool carefully to verify 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

- Cultivator
- Hitch Pins (2) + Ring Pins (2)
- Bolt (3)
- · Small Felt (2)
- Big Felt (2)
- Inner Tines (2)
- · Outer Tines (2)
- Fastening Knob (3)
- · Operator's Manual

A WARNING

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.

A WARNING

Do not attempt to modify this tool or create accessories that are not recommended for use with this tool. Any such alteration or modification constitutes misuse, and could result in a hazardous condition that may lead to serious personal injury.

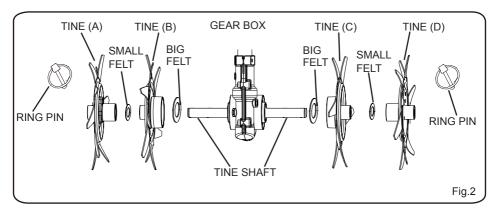
A WARNING

Do not insert the battery into unit until assembly is complete. Failure to comply could result in accidental starting, and possible serious personal injury.

INSTALLING THE TINES (See Figure 2)

The cultivator comes with four tines—For correct operation of the unit, the tines must be installed in the correct order. The cultivator may be used with four tines or two tines.

- 1. Remove the battery from the unit.
- 2. Lean the unit back on its wheels so that it is resting securely with the handlebar on the ground.



NOTE: This view of the gearbox is from the front of the cultivator.

- 3. Place the small felt inserts on each side of the tine shaft, and slide to rest against the inner tine.
- 4. Place tine (B) on the tine shaft to the left of the gear box. The stamped side of the tine should face away from the gear box.
- 5. Place tine (C) on the tine shaft to the right of the gear box. The stamped side of the tine should face away from the gear box.
- 6. Place the large felt inserts on each side of the tine shaft, and slide to rest against the inner tine.
- Place the outer tine stamped (A) on the left side of the tine shaft. The stamped side should face in toward tine (B).
- 8. Place the outer tine stamped (D) on the right side of the tine shaft. The stamped side should face in toward tine (C).

NOTE: When installed correctly, the angled edge of the tine blades should face the ground. To secure the tines to the tine shaft, insert the hitch pin into the holes located on either side of the tine shaft.

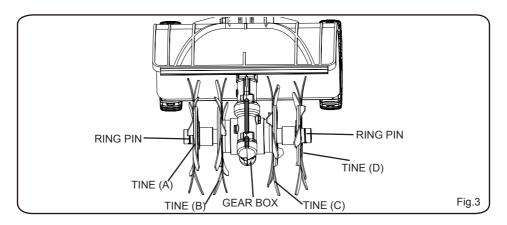
NOTE: The unit will not operate properly if the tines are installed incorrectly. If you notice a problem with the cultivating operation of the unit, check for proper tine positioning.

TINES INSTALLED CORRECTLY (See Figure 3)

NOTE: when the tines are installed correctly, the flute on the tines should line-up, and the angled edge of the tine blades should point towards the ground.

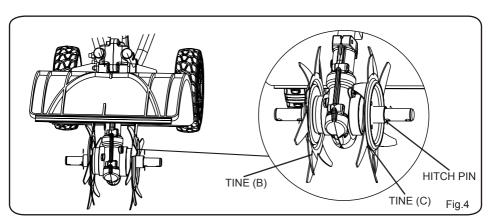
NOTE: The tiller will not operate properly if the tines are not installed correctly. If there is a problem with the cultivating operation of the tiller, check the tines for proper positioning.

NOTE: The directional arrow that is displayed on each tine should point toward the front.



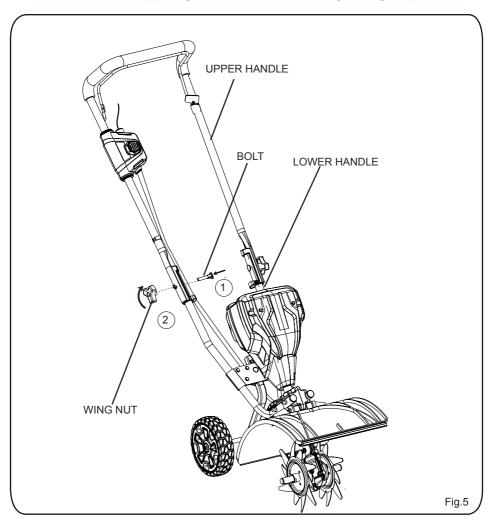
INSTALL TWO TINES FOR TILLING A NARROW AREA (See Figure 4)

1. Place tine (B) onto the shaft, and place tine (C) onto the other side shaft. Insert the hitch pins into the holes in order to secure the tines to the tine shaft.



ASSEMBLING THE HANDLE (See Figure 5)

1. Align the holes on the upper handle assembly with holes on the lower handle found on the cultivator. Insert the bolts (1) through the handles and secure using the wing nut (2).



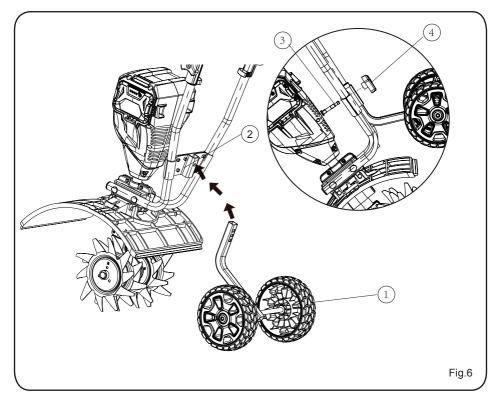
ADJUSTING WHEEL POSITION (See Figure 6)

The wheel position of the unit is adjustable.

The wheels are used to control the depth of operation. To adjust the height of the cultivator:

- 1. Remove the battery from the unit.
- 2. Insert the wheel assembly (1) into the support rod (2).
- 3. Align wheel assembly hole to desired position. Slide bolt (3) through hole and attach fastening knob (4) to bolt (3).
- 4. Tighten the fastening knob (4).

NOTE: The wheels are used to control the depth of operation. To adjust the height of the cultivator, move the bolt to a higher or lower hole position. The wheels can be removed for greater tilling depth.



WARNING

Do not allow hands, feet, or any other part of the body or clothing near the rotating tines or any other moving part. The tines begin to rotate forward once the switch trigger is depressed. The tines continue to rotate until the switch trigger is released. Failure to avoid contact could cause serious personal injury.

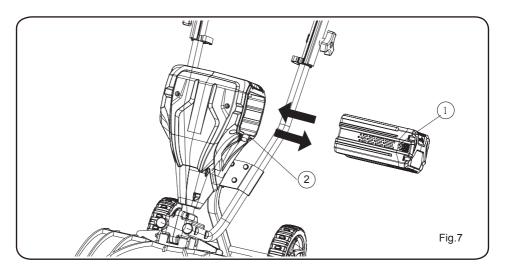
INSTALLING THE BATTERY (See Figure 7)

- 1. Align the battery(1) with the cavity on the cultivator.
- 2. Hold the unit.
- 3. Insert the battery in the opening until the battery release button (2) locks into place. You should hear a "click" once it is installed.

REMOVE THE BATTERY (See Figure 7)

- 1. Press the battery release button (2). This will cause the battery (1) to raise out of the tool.
- 2. Hold the unit. Pull the battery (1) out of the cultivator.

NOTE: The battery fits into the unit snugly in order to prevent accidental dislodging. It may require a strong pull to remove it.



A WARNING

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

A WARNING

Always wear safety goggles or safety glasses with side shields when operating tools. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

A WARNING

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

A WARNING

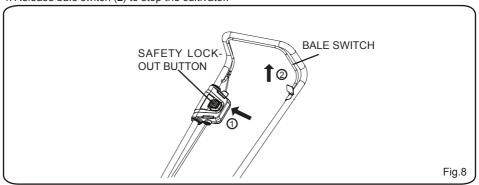
Do not allow hands, feet or any other part of the body or clothing near the rotating tines or any other moving part. The tines begin to rotate forward once the switch trigger is depressed. The tines continue to rotate until the switch trigger is released. Failure to avoid contact could cause serious personal injury.

STARTING THE CULTIVATOR (See Figure 8)

- 1. Insert the battery into the unit until it clicks securely into the battery housing.
- Press the safety-lock out button (1) and pull the switch bail (2) upwards to the handle bar to begin the rotation. Release safety lock-out button (1) while continuing to hold upward on bale switch (2) to continue use.

STOPPING THE CULTIVATOR (See Figure 8)

1. Release bale switch (2) to stop the cultivator.



PREPARING THE SEED BED

The cultivator can be used to break up garden soil and prepare a seed bed for planting. Plan ahead to leave enough room between the seed rows to allow for machine cultivating after the plants have grown.

TILLING SOD:

Tilling sod into the soil is not recommended. If sod must be removed to perform application, then it is suggested to do as follows:

- 1. Map out the area of sod required to be removed.
- 2. Cut into 16 in. x 36 in. sections using a spade shovel or edger at a depth of 3 in.
- 3. Lift the sod from the edges using a shovel sliding below at the roots.
- Remove the sod. Carry sod to compost or other pile turned grass down to allow grass to decompose.
- 5. Once sod layer is removed, begin to till the soil to desired depth.

GENERAL TILLING/CULTIVATING

Shallow cultivating (less than 2 in. [5 cm] deep) can be used to disrupt weeds and aerate soil without injuring nearby plant roots. It should be done often so that weeds do not grow large and get tangled in the tines of the tiller.

The two inner blades can be removed from the unit to allow a narrower cultivating width. See pages 11 for correct tine installation process.

- 1. With the wheel assembly installed to the desired depth position as described on page 13, roll the tiller to the work area.
- 2. Insert the battery into the unit.
- 3. Stand behind tiller, with tines on ground and the work area clean and free of obstructions.
- 4. Start the tiller using directions from page 15.

NOTE: It may take several passes over the same path in order to reach the desired depth. Do not try to dig too deep on the first pass. If the tiller jumps or bucks, allow it to move forward at a slightly faster pace. In order to dig deeper, lift up on the handlebar pushing the front harder into the ground. Apply downward pressure on the handlebar, pulling unit down towards you for more shallow cultivating. If the tiller stays and digs in at one spot, try rocking it from side to side in order to start it moving forward again. If the soil is very hard, water it a few days before cultivating. Avoid working soil that is soggy or wet. Wait a day or two after heavy rain for the ground to dry.

IMPORTANT: If weeds, roots, vines or other growth collect around the bottom of the tiller it is important to stop tilling. Remove the battery and clean the tines using a screwdriver or another object (not included) that can help remove debris. If necessary, remove the tines to untangle debris from shaft and tines.

QUICK TIPS:

Remove rocks and roots before tilling in order to prevent damage to the tiller. Work the soil when it is neither too wet nor too dry. To test the moisture level of the soil, take a handful of soil and squeeze it. If it remains in a tight ball when you release your grip, it is too wet. If it crumbles, it is ready to till. Dry soil is difficult to cultivate, and valuable topsoil can be blownaway when tilling on a windy day. Fall tilling presents many advantages over spring tilling. It eliminates blown away the need to till in the spring, and it allows for earlier planting. Soil moisture and temperature conditions are favorable for decomposition of the organic matter that is turned under in the fall. Furthermore, disease organisms, insects, and perennial weeds can be reduced by tilling in the fall.

MAINTENANCE

WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

🕰 WARNING

Always wear safety goggles or safety glasses with side shields during product operation. If operation is dusty, also wear a dust mask.

🛕 W A R N I N G

Before inspecting, cleaning, or servicing the machine, disconnect the battery from unit and wait for all moving parts to stop. Failure to follow these instructions can result in serious personal injury or property damage.

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, oil, grease, etc.

🕰 WARNING

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., Come in contact with plastic parts. Chemicals can damage, weaken, or destroy plastic which may result in serious personal injury. Only the parts shown on the parts list are intended to be repaired or replaced by the customer. All other parts should be replaced at an authorized service center.

STORING THE CUI TIVATOR

The following steps should be taken before storing the cultivator for the season.

- . Clean dirt. grass, and other materials from the entire unit.
- Wipe the tines with oil or spray them with silicone lubricant to prevent rusting.
- Oil the switch trigger cable and all visible moving parts. Do not remove the motor cover.
- Order new parts to replace any that are badly worn or broken.
- Store in an upright position in a clean, dry place. Store with the handles in the extended position, or loosen handle knobs and fold handles down. Do not allow switch trigger cable to become pinched when lowering the handlebar.

PREPARING FOR USE AFTER STORAGE

The following steps should be taken before using the cultivator after it has been stored.

- Unfold the handles into the upright position and secure by tightening handlebar knobs. Do not allow the switch trigger cable to become pinched when raising the handlebar.
- · Follow the steps to restart the cultivator.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor fails to start when switch trigger is depressed.	The battery is not inserted in or connection is loose.	Insert the battery into unit.
Motor runs but tines do not move.	Gear train failure.	Take unit to authorized service center.

LIMITED FOUR-YEAR WARRANTY





GREENWORKS® hereby warranties this product, to the original purchaser with <u>proof of purchase</u>, 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.

ITEMS NOT COVERED BY WARRANTY:

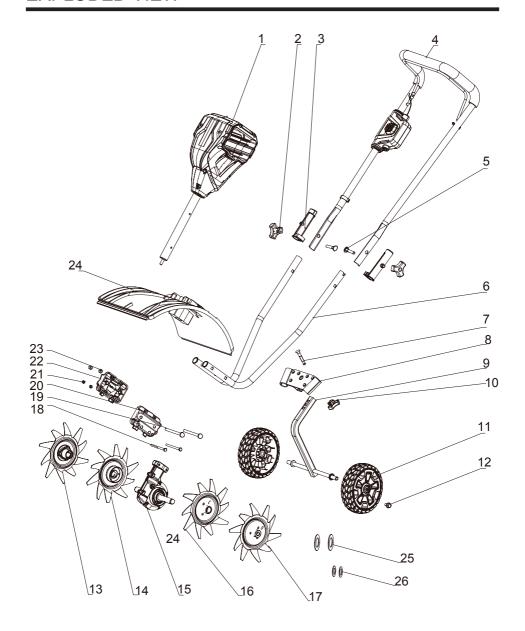
- Any part that has become inoperative due to misuse, abuse, neglect, accident, improper maintenance, or alteration; or
- The unit, if it has not been operated and/or maintained in accordance with the owner's manual; or
- 3. Normal wear, except as noted below;
- 4. Routine maintenance items such as lubricants, 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	311051663	Power head	1
2	341291179	Fastening knob	2
3	341031555	Insulation sleeve	2
4	311061663AC	Upper handle assy	1
5	322041179	Bolt	2
6	311061663AD	Lower handle assy	1
7	332021054	Bolt	1
8	311091663	Support plate	1
9	311041663AB	Wheel assy	1
10	3410835-19	Fastening knob	1
11	341171559AB	Wheel	2
12	32202390A	Bolt	2
13	311101663	Tine A	1
14	311111663	Tine B	1
15	311021663	Gear box	1
16	311121663	Tine C	1
17	311131663	Tine D	1
18	331171663	Bolt	2
19	331161663	Bolt	2
20	331141663	Right housing	1
21	32201100	Nut	2
22	331131663	Left housing	1
23	32201467	Nut	2
24	341051663	Cover	1
25	349021663	Big felt	2
26	349031663	Small felt	2



Greenworks Tools PO Box 1238 Mooresville, NC 28115

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

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