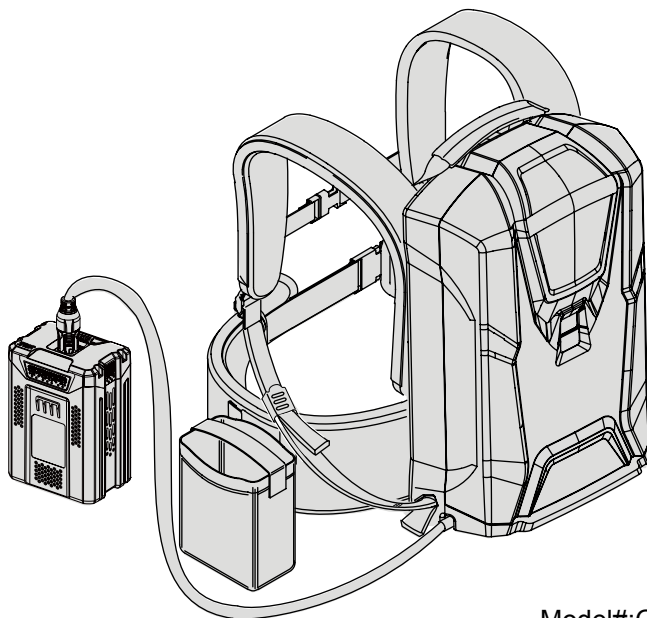

GREENWORKS

COMMERCIAL

82V RECHARGEABLE LITHIUM-ION BACKPACK BATTERY



Model#: GL 900
(2907402)

Owner's Manual

TOLL-FREE HELPLINE: 1-855-470-4267
www.greenworkstools.com/82v-Commercial/

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

BATTERY

SPECIFICATIONS

Rechargeable Li-ion Battery
Model: GL 900
Rating: 82V DC, 900Wh
Charge time: up to 3 h
Weight: 16.5 lbs (7.5 kg)

SAFETY INFORMATION

⚠ WARNING

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

For the proper use, maintenance and storage of this battery, it is important that you read and understand the instructions given in this manual.

To avoid serious injury, risk of fire, explosion and danger of electric shock or electrocution:

- If the battery pack case is cracked or damaged, DO NOT insert into the charger. Replace the battery pack.
 - Do not charge the backpack battery with any other type of charger. For use only with Greenworks Li-ion Battery Charger (GC 400).
 - Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
 - Risk of Fire and Burns. Do Not Open, Crush, Heat Above 100°C or Incinerate. Follow Manufacturer's Instructions.
-

⚠ WARNING

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.

SAFETY NOTES AND PRECAUTIONS

1. Do not disassemble the battery.
 2. Keep battery out of reach of children.
 3. Do not expose the battery to water. Always store battery in cool and dry environment.
 4. Do not place the battery in high-temperature locations, such as near a fire, heater, etc.
 5. Do not reverse the positive terminal and the negative terminal of the battery.
 6. Do not knock, strike, or step on the battery.
 7. Do not solder directly onto the battery or pierce the battery with nails / edging tools.
 8. Immediately discontinue use of the battery should it begin to feel hot, change color, change shape, appears abnormal, emit unusual smells, or leak fluid. Should fluid make contact with the user's eyes, do not rub eyes. Rinse eyes well with water.
-

⚠ WARNING

To avoid risk of fire, electric shock, or electrocution:

- Do not use a damp cloth or detergent on the battery or battery charger.
 - Always remove the battery pack before cleaning, inspecting, or performing any maintenance on the tool.
-
-

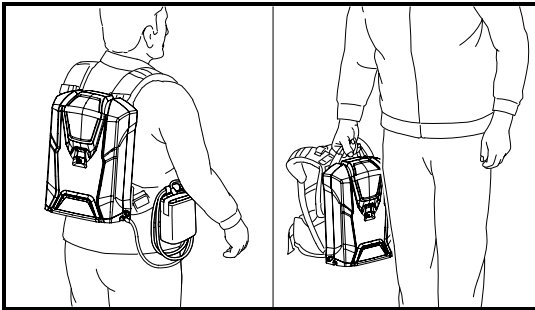
BATTERY

- Do not allow the battery pack or charger to overheat. If they are warm, allow them to cool down. Recharge only at room temperature. When charging, make sure temperature is between 10-40°C (50-104°F), -20-45°C(-4-113°F) for discharge.
- Keep the ventilation slots of the charger clear.
- Do not allow small metal items or material such as steel wool, aluminum foil, or other foreign particles into the charger cavity.
- Do not place the battery pack in the sun or in a warm environment. Keep at normal room temperature.
- 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.
- The battery pack cells may develop a small leak under extreme usage or temperature conditions.
- If the outer seal is broken and the leakage gets on your skin:
 - Use soap and water to wash immediately.
 - Neutralize with lemon juice, vinegar, or other mild acid.
- If leakage gets in your eyes, follow instructions above and seek medical attention.

THE USE OF THE BATTERY

Transporting the Battery

Disconnect the battery from the power tool – even when carrying it for short distances. This avoids the risk of accidental startup.



Carry the battery by the handle or on your back.

In vehicles: Properly secure the battery to prevent turnover and damage.

⚠ WARNING

Special precautions must be taken when transporting a damaged or malfunctioning battery. To reduce the risk of accidents, always contact your GREENWORKS servicing dealer before transporting such a battery.

BATTERY

Cleaning the Battery

1. Always clean dust and dirt off the battery before use. Do not use any grease solvents when cleaning.
2. Clean plastic surfaces with a cloth. Do not use aggressive detergents. They may damage the plastic.
3. Do not spray the battery with water.
4. Do not use a pressure washer to clean your battery. This may damage parts of the battery and cause malfunctions.

Storing the Battery

1. Disconnect the battery from the power tool or charger.
2. When the battery is not in use, put it in a safe place so that it does not endanger others. Secure it against unauthorized use.
3. Store the battery out of the reach of children.
4. Store indoors in a dry and safe location. Protect it from dirt and damage.
5. To ensure maximum battery life: Store with a charge of about 40%.
6. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
7. Do not store spare batteries unused for extended periods of time. If you have multiple batteries be sure to use them in rotation.

Notes on Cable

1. Check the adapter and its cable and plug for signs of damage. Never use a damaged adapter, cable or plug.
2. Make sure the insulation of the cable and plug is in good condition.
3. Straighten a twisted cable before use.
4. Position the cable so that it cannot be reached or damaged by the cutting or working attachment of the power tool being used.
5. Do not chafe, squash, jerk or damage the cable. Protect it from heat, oil and sharp edges.
6. Do not use the cable for any other purpose. Do not use the cable for carrying or hanging up the battery or power tool. Do not tug the cable.
7. Position the cable so that it does not endanger others. If mishandled there is a risk of tripping or stumbling.

Notes on Operation

Disconnect battery from the power tool:

- when carrying out tests and adjustments or cleaning
- before working on the power tool's cutting or working attachment
- before leaving the machine unattended
- when transporting
- storing the machine
- before performing repairs and maintenance work
- in the event of a malfunction or in an emergency

This avoids the risk of accidental startup.

BATTERY

Before Starting Work

Check that the battery is in good condition – refer to appropriate chapters in the instruction manual.

- Check condition of housing parts.
- Check condition of straps.
- Make sure cable, plug and adapter are not damaged.
- Depress push button to activate the LED display.
- When push button, acoustic signal should beep.

Do not continue using the battery if parts of housing or straps are worn, cracked or broken – contact GREENWORKS servicing dealer.

To reduce the risk of personal injury, use the battery only if it is in good working order.

Do not use the battery if any of its components are damaged.

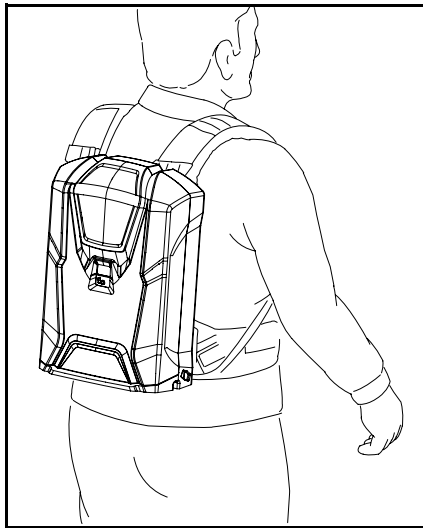
For emergencies: Practice quickly opening the fastener on the waist belt, loosening the shoulder straps and setting down the battery. To avoid damage, do not throw the battery to the ground when practicing.

During Operation

⚠ WARNING

The battery is equipped with a visual and acoustic signal. Your ability to hear the acoustic signal may be reduced when wearing hearing protection.

The battery is carried as a backpack.



BATTERY

The battery is designed to be operated by one person only. Do not allow other persons in the work area.

Make sure you always have good balance and secure footing.

Never work with the battery in trees, on roofs or on a ladder or other areas with poor footing.

Make sure the cable cannot become entangled or snag on objects – position and secure the cable carefully before starting work.

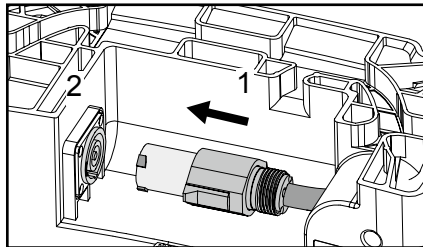
If the battery is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work. Do not continue operating the battery if it is damaged. In case of doubt, contact your GREENWORKS servicing dealer.

After Finishing Work

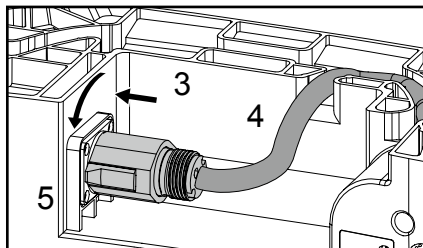
Clean the battery – see "Cleaning the Battery".

ASSEMBLING THE BATTERY

Connecting the Adapter

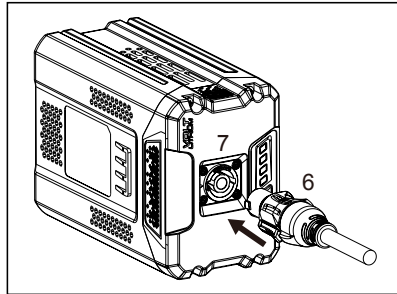


1. Insert the plug (1) of one side into the socket (2) of the battery – line up the lugs on the plug with the slots in the socket.

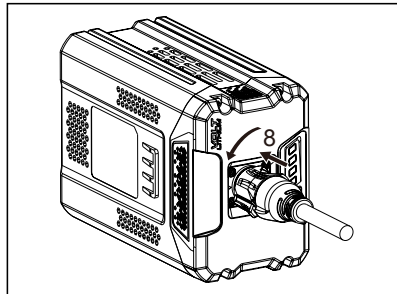


2. Push the plug into the socket until it stops, (3) then turn it clockwise until the plug's latch (3) engages audibly.
3. Fit cable (4) into the cable duct (5) and wind through the housing – see also "Positioning the Cable".

BATTERY



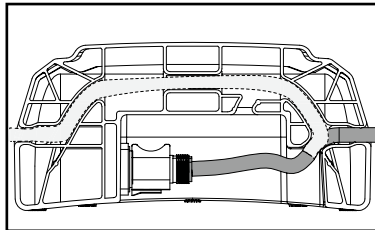
4. Insert the plug (6) on the other side into the socket (7) of the adapter – line up the lugs on the plug with the slots in the socket.



5. Push the plug into the socket until it stops, (8) then turn it clockwise until the plug's latch (8) engages audibly.

Positioning the Cable

The cable can be fitted in different cable ducts depending on whether the power tool is being operated next to or behind the user:



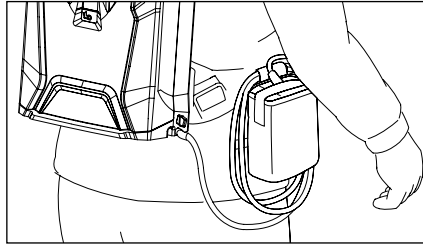
Fit the cable in one of the lateral cable ducts and push it into place.

Always use the cable outlets at the side on which the power tool is held and controlled.

⚠ WARNING

To reduce the risk of accidents, never lay the cable diagonally – it may snag on objects.

BATTERY

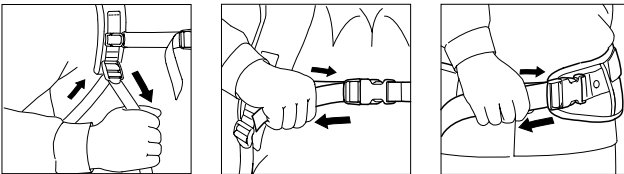


If the cable is too long, attach it to the retainer on the bag.

FITTING THE HARNESS

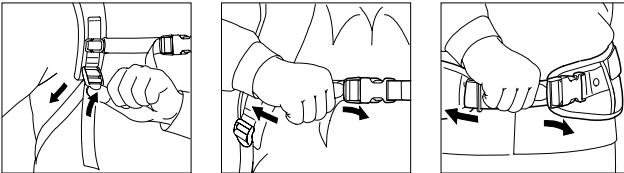
Adjusting the Harness Straps

A



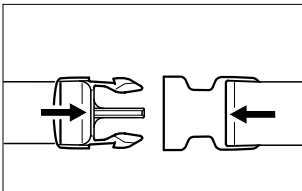
A Pull the ends of the straps downward to tighten the harness.

B

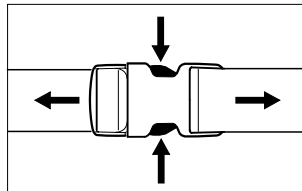


B Lift the tabs of the adjusters to loosen the straps.

C



D

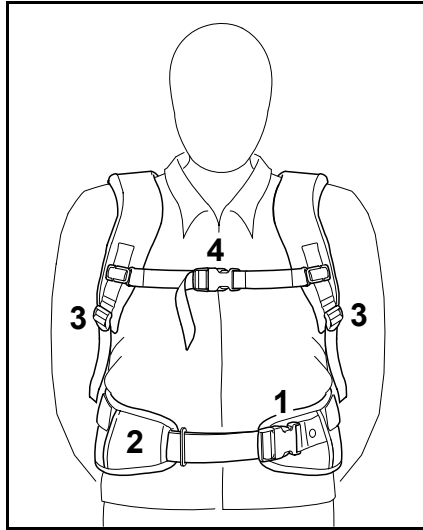


C Close and lock the quick-release fastener by pushing it together.

D Squeeze the hooks to open the quick-release fastener.

BATTERY

Put on the shoulder strap.



1. Fasten and adjust the waist belt (1) so that it rests comfortably on your hips – thread the end of the belt through the loop (2) – do not let the strap hang down.
 2. Adjust the harness straps (3) to the correct length.
 3. Adjust chest strap (4) to correct length and fasten it.
- The back padding must fit firmly and securely against your back.

Removing Harness

- Open the quick-release fasteners on the waist belt and chest strap.
- Loosen the harness straps by lifting the sliding adjusters and then take off the battery.

Throwing Off the Machine

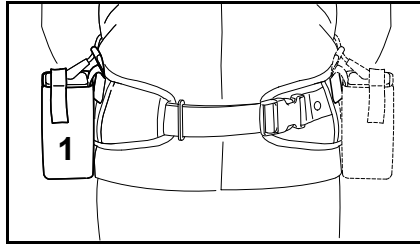
⚠ WARNING

The battery must be quickly thrown off in the event of imminent danger. The waist belt and chest strap must be opened before throwing the battery to the ground.

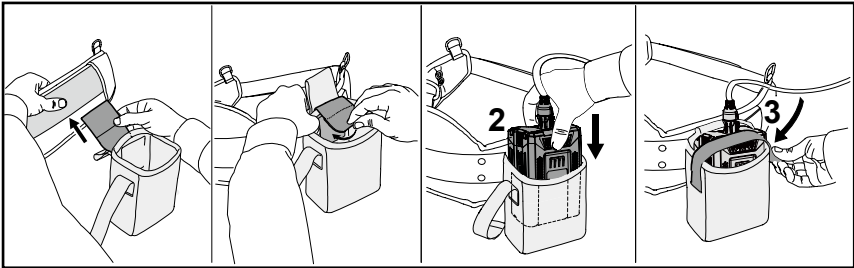
Pouch

Accommodates adapter during work breaks and after finishing work.

BATTERY



Secure the pouch (1) to the waist belt only in the positions shown.



1. Attach pouch to waist belt.
2. Insert the adapter (2).
3. Close the hook and eye fastener (3) – the adapter is held in the pouch.

⚠ WARNING

Never transport metallic, pointed or sharp objects in the pouch. They may bridge the contacts in the adapter and cause a short circuit.

ACOUSTIC SIGNAL

The battery emits acoustic signals as well as optical signals.

A short beep

- This signal is activated by pressing the button on the battery. Meaning: Acoustic signal works as it should.

B short beep once every 10 sec

- Meaning: The battery is less than 20% capacity.

C short beep once every 2 sec

- Meaning: Malfunction in battery – see "Troubleshooting".

BATTERY

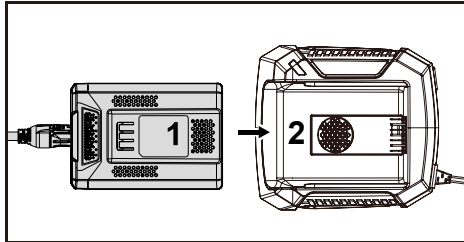
CHARGING THE BATTERY

A factory-new battery is not fully charged.

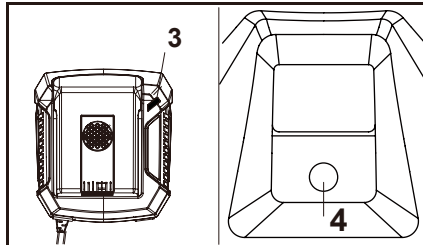
Recommendation: Fully charge the battery before using it with your power tool for the first time.

- Connect the charger to the power supply – mains voltage and operating voltage of the charger must be the same.

Operate the charger indoors only in dry locations at an ambient temperature between 10-40°C (50-104°F).



- Push the adapter (1) into the charger (2) until you feel noticeable resistance – then push it in until it stops.



- The light emitting diode (3) on the charger comes on when the adapter is inserted – see "Light Emitting Diode (LED) on Charger".
- Charging begins as soon as the digits start to flash – see "Light Emitting Diodes (LEDs) on Battery".

The charge time is dependent on a number of factors, including battery condition, ambient temperature, etc., and may therefore vary from the charge time in the "Specifications".

The battery warms up during operation. If a warm battery is inserted in the charger, it may be necessary to cool it down before charging. The charging process begins only after the battery has cooled down. The time required for cooling may prolong the charge time.

BATTERY

End of Charge

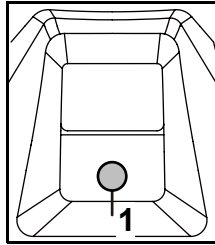
The charger switches itself off automatically when the battery is fully charged:

- Light emitting diodes on the battery go off
- The light emitting diode on the charger is solid Green
- The charger's fan is switched off.

Remove the adapter from the charger.

LED ON BATTERY

The LEDs show the battery's capacity & any problem with the battery or the power tool being used.



Press button (1) to activate the LEDs – the display goes off automatically after 5 seconds.

The acoustic signal must sound briefly when the button is pressed (to confirm function) – see also "Acoustic Signal".

During Charging Process

The words showing the current battery capacity will be blinking.

During Operation

LED will indicate the battery capacity.

If the LED glow continuously / flash

When the pack goes wrong, it will show different fault codes – see "Troubleshooting".

E0 – BMS fault

E1 – Over-current (discharging)/(charging)

E2 – Communication fault (with charger or external tools)

E3 – Over-voltage of cell

E4 – Low-voltage of cell

E5 – Bad consistency of cell

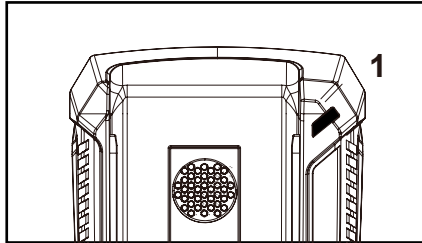
E6 – External tools abstract electricity

HI – Over temperature of battery

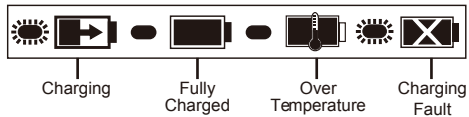
Lo – Low temperature of battery

BATTERY

LED ON CHARGER



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



LED STATUS	DESCRIPTION
Blinking Green	Charging
Solid Green	Fully Charged
Solid Red	Over Temperature
Blinking Red	Charging Fault

CONNECTING BATTERY TO POWER TOOL

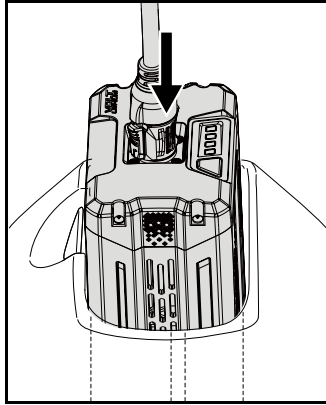
A factory-new battery is not fully charged.

Recommendation: Fully charge the battery before using it for the first time.

- If necessary, remove the cover from the power tool's battery compartment before fitting the adapter, i.e. depress the locking lever to unlock and remove the cover.

BATTERY

Insert adapter

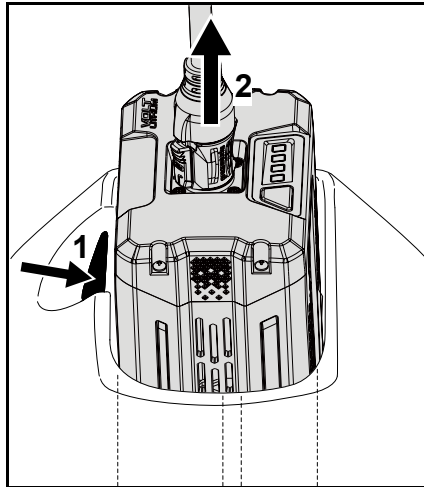


Insert the adapter (1) in the power tool – the adapter slides into the compartment – press it down carefully until it snaps into position. The battery and power tool are now connected together.

For further information on switching on and operating the power tool: see the instruction manual of the power tool being operated with this battery.

DISCONNECTING BATTERY FROM POWER TOOL

Switch off the power tool – see also instruction manual of the power tool being used.



- Depress locking levers (1) to unlock the adapter.
- Take the adapter (2) out of the power tool.

The battery and power tool are now disconnected.

BATTERY

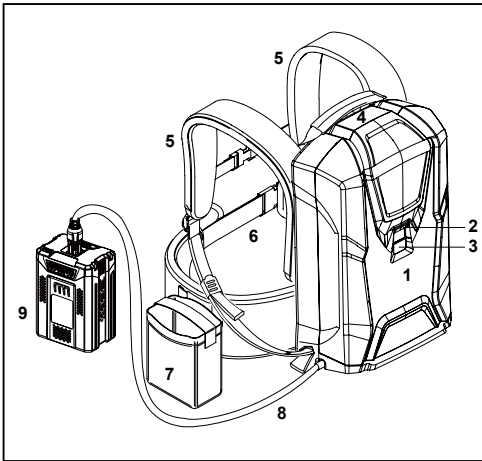
MAINTENANCE AND CARE

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, etc.), shorten the specified intervals accordingly. Always disconnect the battery from the power tool before performing any work on the battery.		before starting work	after finishing work	weekly	monthly	every 12 months	if problem	if damaged	if required
Battery	Visual inspection	√					√	√	√
	Clean		√						
Light emitting diodes (LED)	Check operation – LED display must be activated when button is pressed	√							√
Acoustic signal	Check operation – brief signal must sound when press the button	√							√
Adapter and cable	Visual inspection	√				√	√		
Safety labels	Replace						√		

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.

MAIN PARTS



1. Battery
2. Light Emitting Diodes (LED) on Battery
3. Push Button
4. Carrying Handle
5. Shoulder Straps
6. Hip/Waist Belt
7. Pouch
8. Cable
9. Adapter

Definitions

Battery	Supplies the motor of the power tool (used with this battery) with electrical power.
Light Emitting Diodes (LED) on Battery	Indicate the state of charge and operating condition of the battery.
Push Button	For activating light emitting diodes (LED) on battery and for checking operation of acoustic signal.
Carrying Handle	For transporting the battery.
Shoulder Straps	Carry the battery comfortably on back and shoulders.
Chest Strap	Ensures a more secure hold in the chest area.
Hip/Waist Belt	Carries the battery comfortably on hip / around the waist.
Pouch	Accommodates adapter during work breaks and after finishing work.
Cable	Supplies electric current from the battery to the adapter.
Adapter	Supplies electric current to the power tool.

TROUBLESHOOTING

Always disconnect the battery from the power tool before performing any maintenance work.		
PROBLEM	CAUSE	SOLUTION
Power tool does not start after switch-on.	No electrical contact between power tool and battery.	Remove adapter, check contacts and refit adapter.
	Battery has low charge (beep once per 10 sec).	Charge the battery.
	Battery too hot / too cold (LED indicate HI or LO & beep continuously).	Allow battery to cool down to temperatures of about 10-40°C (50-104°F). Allow battery to warm up slowly.
	Malfunction in battery (LED will indicate Malfunction code such as E0,E1,E2,E3,E4,E5,E6).	Disconnect battery from power tool, take it off your back, observe battery and contact your GREENWORKS servicing dealer immediately. If the battery emits fumes, heats up, smells, makes noises or shows signs of deformation, disconnect it from the power tool, take it off your back, put it down and immediately move a safe distance away. Keep children and animals away from the work area. Keep battery away from combustible materials.
	Electromagnetic problem or malfunction in machine.	Take the adapter out of the power tool and refit it. Switch on the power tool – if it still doesn't work, the power tool has a malfunction and must be checked by a GREENWORKS servicing dealer.
	Moisture in power tool and/or battery.	Allow power tool battery to dry.
Power tool shuts down during operation.	Battery or machine's electronics are too hot.	Take the adapter out of the power tool; allow the battery and power tool to cool down.
	Electrical or electromagnetic malfunction.	Remove the adapter and refit it again.
	Malfunction in battery (LED will indicate Malfunction code such as E0,E1,E2,E3,E4,E5,E6).	Disconnect battery from power tool, take it off your back, observe battery and contact your GREENWORKS servicing dealer immediately. If the battery emits fumes, heats up, smells, makes noises or shows signs of deformation, disconnect it from the power tool, take it off your back, put it down and immediately move a safe distance away. Keep children and animals away from the work area. Keep battery away from combustible materials.

TROUBLESHOOTING

Always disconnect the battery from the power tool before performing any maintenance work.		
PROBLEM	CAUSE	SOLUTION
Running time is too short.	Battery not fully charged.	Charge the battery.
	Useful life of battery has been reached or exceeded.	Have battery checked and replaced by GREENWORKS servicing dealer.
LED indicates (E0, E1, E2, E3, E4, E5, E6)& beep once per 2 sec.	Malfunction in battery.	Disconnect battery from power tool, take it off your back, observe battery and contact your GREENWORKS servicing dealer immediately. If the battery emits fumes, heats up, smells, makes noises or shows signs of deformation, disconnect it from the power tool, take it off your back, put it down and immediately move a safe distance away. Keep children and animals away from the work area. Keep battery away from combustible materials.
LED indicates LO & beep once per 10 sec.	Battery has low charge.	Charge the battery.
Adapter jams when being inserted in power tool / charger.	Guides dirty.	Carefully clean the guides.
Battery is not being charged even though LED on charger blinks green.	Battery too hot / too cold (LED indicate HI or LO & beep continuously).	Allow battery to cool down to temperatures of about 10-40°C (50-104°F). Allow battery to warm up slowly. Operate charger only in closed, dry rooms at ambient temperatures of 10-40°C (50-104°F).
LED on charger flashes red.	No electrical contact between charger and battery.	Remove the adapter and refit it again.
	Malfunction in battery (the status LED blinks RED).	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.

TROUBLESHOOTING

Always disconnect the battery from the power tool before performing any maintenance work.		
PROBLEM	CAUSE	SOLUTION
LED on charger flashes red.	Malfunction in charger.	<ul style="list-style-type: none">• Check the current at the power outlet with another tool. Make sure that the outlet is not turned off.• Check that the charger contacts have not been shorted by debris or foreign material.• If the air temperature is above 100°F or below 45°F, move the charger and battery pack to a room temperature location. Have charger checked by GREENWORKS servicing dealer.

LIMITED WARRANTY



GREENWORKS™ battery hereby warrants this product, to the original purchaser with proof of purchase, for a period of one (1) year 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.

1 Year Limited Battery Warranty Coverage:

- Greenworks Commercial Battery Packs (GL 200, GL 250, GL 300, GL 400, GL 500, GL 900)
- 1 year from the date of purchase (non transferable)

Warranty Exclusions, Limitations and Rights:

1. All warranties may not be transferred by the consumer to any subsequent purchaser.
2. Parts or components not supplied by the warrantor, or parts or components that have been modified.
3. Any failure resulting from the use of improper tools or improper repair procedures.
4. Any failure or part that has become inoperative due to accident, impact, abuse, misuse, neglect, mishandling, dulling of cutting edges, or failure to operate the product in accordance with the information provided in the instruction manual supplied with the product.
5. Normal deterioration of the exterior due to use or exposure, and any repairs made necessary by normal wear, improper maintenance, improper lubrication, improper storage, dirt, abrasives, impact, moisture, water, rain, snow, rust, corrosion, varnish, or other similar conditions.
6. Routine maintenance items such as lubricants, blade sharpening.
7. The unit, if it has not been operated and/or maintained in accordance with the owner's manual.
8. Improper voltage for electric products and batteries that have been exposed to temperatures beyond those specified in the product's instruction manual, batteries that have not been properly charged or batteries that have reached their useful life.

LIMITED WARRANTY

GREENWORKS HELPLINE:

Warranty service is available by calling our toll-free helpline, at **1-855-470-4267**.

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**.

GREENWORKS

COMMERCIAL

**Greenworks Tools
PO Box 1238
 Mooresville, NC 28115**



TOLL-FREE HELPLINE: 1-855-470-4267

Rev: 00 (08-25-16)