Rev B

greenworks

PA351
PA351K

EN	BELT SANDER	OPERATOR MANUAL
FR	PONCEUSE À BANDE	MANUEL D'OPÉRATEUR
ES	LIJADORA DE BANDA	MANUAL DEL OPERADOR



BEG401

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1 DESCRIPTION

1.1 PURPOSE

You may use this product for the purposes listed below:

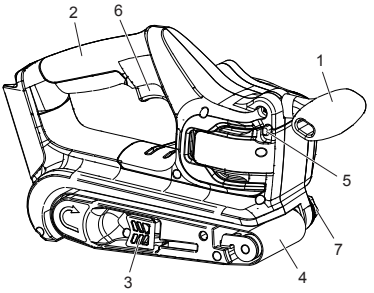
- Sanding wood, metals, plastics, and other materials
- Smoothing rough boards, chamfering, rounding edges
- Removing rust, paint, varnishes, and stains

⚠ WARNING

Always remove the battery pack when attaching, changing, or adjusting sanding belts. Failure to do so could cause accidental starting, leading to serious personal injury.

Failure to hold the tool and the battery pack firmly may cause them to slip off your hands and result in damage to the tool and battery pack and personal injury.

1.2 OVERVIEW



1	Adjustable front handle	2	Rear handle
3	Tension release lever	4	Sanding belt
5	Handle release button	6	Switch trigger
7	Tracking knob		

1.3 PACKING LIST

1. Belt sander
2. Sandpaper
3. Instruction manual
4. Dust collection bag

2 GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

2.1 WORK AREA SAFETY

- **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

2.2 ELECTRICAL SAFETY

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

2.3 PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or*

energising power tools that have the switch on invites accidents.

- **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

2.4 POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

2.5 BATTERY TOOL USE AND CARE

- **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.*
- **Use power tools only with specifically designated battery packs.** *Use of any other battery packs may create a risk of injury and fire.*
- **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 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 tool that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.*
- **Do not expose a battery pack or tool to fire or excessive temperature.** *Exposure to fire or temperature above 130°C (265 °F) may cause explosion.*
- **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** *Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.*

2.6 SERVICE

- **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*
- **Never service damaged battery packs.** *Service of battery packs should only be performed by the manufacturer or authorized service providers.*

3 SYMBOLS ON THE MACHINE

You can use below symbols on the machine. Please study them and learn their definitions. Correct interpretation of these symbols let you operate the tool better and safer.

Symbol	Explanation
	**Safety Alert** Indicates a potential personal injury hazard.
	**Read Operator's Manual** To reduce the risk of injury, user must read and understand operator's manual before using this product.

Symbol	Explanation
	**Eye Protection** Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	**Wet Conditions Alert** Do not expose to rain or use in damp locations.
	**Recycle Symbols** This product uses nickel-cadmium (Ni-Cd) and lithium-ion (Li-ion) batteries. Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.
V	**Volts** Voltage
min	**Minutes** Time
⎓	**Direct Current** Type or a characteristic of current
n_o	**No Load Speed** Rotational speed, at no load
.../min	**Per Minute** Revolutions, strokes, surface speed, orbits etc., per minute

4 THE RECOMMENDED AMBIENT TEMPERATURE RANGE:

Item	Temperature
Appliance storage temperature range	32 ˚F (0 ˚C) ~ 113 ˚F (45 ˚C)
Appliance operation temperature range	32 ˚F (0 ˚C) ~ 113 ˚F (45 ˚C)
Battery charging temperature range	39 ˚F (4 °C) ~ 104 ˚F (40 ˚C)
Charger operation temperature range	39 ˚F (4 °C) ~ 104 ˚F (40 ˚C)
Battery storage temperature range	32 ˚F (0 ˚C) ~ 113 ˚F (45 ˚C)
Battery discharging temperature range	32 °F (0 °C) ~ 113 °F (45 °C)

5 PROPOSITION 65

⚠ WARNING

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;
- 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.

6 ENVIRONMENTALLY SAFE BATTERY DISPOSAL





The toxic and corrosive materials below are in the batteries used in this machine: **Lithium-ion, a toxic material.**

⚠ WARNING

Discard all toxic materials in a specified manner to prevent contamination of the environment. Before discarding damaged or worn out Lithium-ion battery, 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 center, certified for Lithium-ion disposal.

⚠ WARNING

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

- Cover the terminals of the battery with heavy-duty adhesive tape.
- DO NOT try to remove or destroy any of the battery pack components.
- DO NOT try 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 put these batteries in your regular household trash.
- DO NOT incinerate.
- DO NOT put them where they will become part of any waste landfill or municipal solid waste stream.
- Take them to a certified recycling or disposal center.

7 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.
- Stay alert, and turn the machine off if a child or any other person enters the working area.
- 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 machine.

8 RISK LEVELS

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

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

9 INSTALLATION

9.1 UNPACK THE MACHINE

⚠ WARNING

Make sure that you correctly assemble the machine before use.

⚠ WARNING

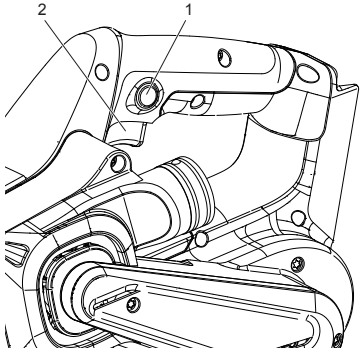
- If parts of the machine are damaged, do not use the machine.
- If parts are missing, do not operate the machine.
- If parts are damaged or missing, contact the service center.

1. Open the package.
2. Read the documentation provided in the box.
3. Remove all the unassembled parts from the box.
4. Remove the machine from the box.
5. Discard the box and packing material in compliance with local regulations.

⚠ WARNING

For your personal safety, do not insert battery before the tool is assembled completely.

9.2 TURN THE SANDER ON/OFF



1 Lock-on button 2 Switch trigger

TO TURN THE SANDER ON:

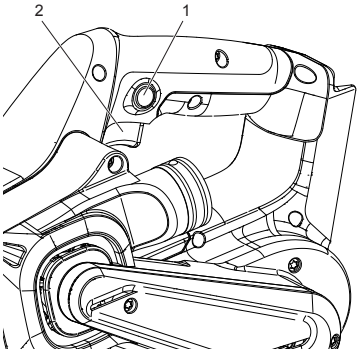
1. Insert the battery pack.
2. Depress the switch trigger.

TO TURN THE SANDER OFF:

1. Release the switch trigger.

9.3 LOCK ON THE SANDER

Lock-on button



1 Lock-on button 2 Switch trigger

The lock-on feature allows you to lock the switch trigger in the **ON** position. Locking the switch trigger on allows you to operate the sander for extended periods of time.

If you have the lock-on feature engaged during use and the battery pack is removed from the sander, disengage the lock-on feature immediately. Also, do not lock the switch trigger if you might need to suddenly stop the sander.

⚠ WARNING

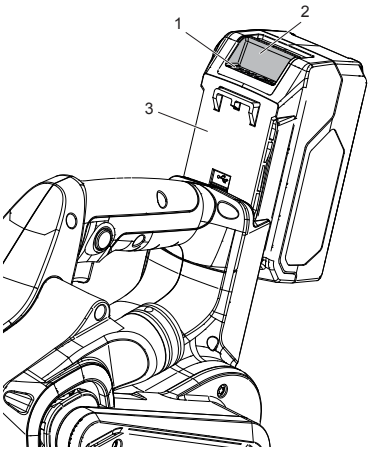
Before connecting the sander to a power supply, ensure that the "locked on" position is NOT engaged. Failure to do so could result in accidental starting of the sander resulting in possible serious injury.

1. Depress the switch trigger.
2. Push in the lock-on button.
3. Release the switch trigger.
4. Release the lock-on button.

i NOTE

To release the lock, depress and release the switch trigger.

9.4 INSTALL/REMOVE BATTERY PACK



1 Red indicator 2 Button

3 Battery pack

To install:

1. Align the tongue on the battery pack with the groove in the housing and slip it into place
2. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

To remove:

1. Slide it from the tool while sliding the button on the front of the pack.

9.5 USE SANDING BELTS

Selecting sanding belts

Selecting the correct size and type of sanding belt is an important step in achieving a high quality sanded finish. Aluminum oxide, silicon carbide, and other synthetic abrasives are best for power sanding.

In general, when sanding, coarse grit removes the most material and fine grit produces the best finish. The condition of the surface to be sanded determines which grit will do the best job. If the surface is rough, start with a coarse grit and sand until the surface is uniform. Then use medium grit to remove scratches left by the coarser grit. Finally, use finer grit for finishing the surface. Always continue sanding with each grit until the surface is uniform.

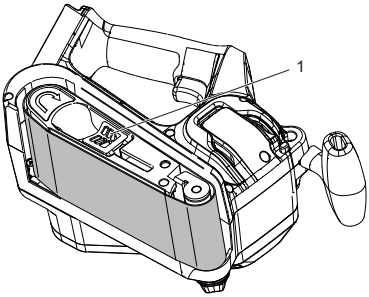
Installing sanding belts

1. Remove the battery pack.
2. Position the sander on its side.

⚠ WARNING

Keep hands and fingers clear of both rollers and spring mechanism at all times. Failure to do so could result in fingers getting pinched, causing serious injury.

3. Raise the tension release lever.



1 Tension release lever

i NOTE

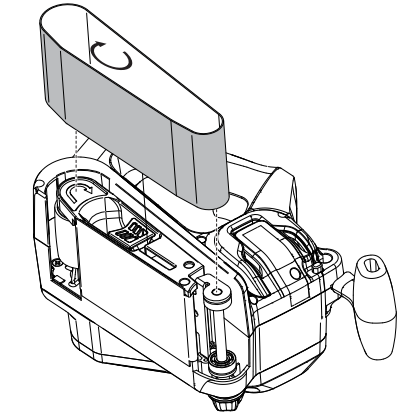
If you are changing sanding belts, remove the old sanding belt at this time.

4. Install the sanding belt.

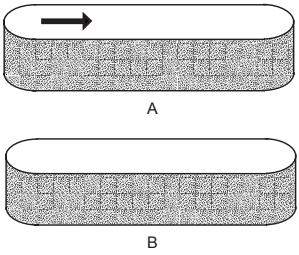
⚠ CAUTION

If the sanding belt is not a bidirectional belt, ensure that the arrow inside the belt is pointing in the direction of the rotation (clockwise when looking into the open side of the sander). Installing unidirectional sanding belts backwards can create a hazardous condition.

5. Align the sanding belt to its correct position.



6. Lower the tension release lever to secure the sanding belt.



A Install unidirectional belts in the direction of the rotation

B Install bidirectional belts in either direction

9.6 ADJUST SANDING BELT TRACKING

Belt life is greatly increased if you regularly adjust the sanding belt tracking. When correctly adjusted, the outer edge of the sanding belt should be even with the outer edge of the base of the sander.

When you install a new sanding belt, you may need to adjust the sanding belt tracking several times until the belt becomes conditioned.

i NOTE

Before connecting the sander to a power supply, always make sure it is not in the “locked-on” position. Failure to do so could result in accidental starting of the sander resulting in possible serious injury.

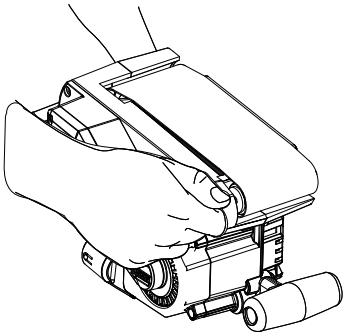
Follow these steps to adjust sanding belt tracking.

1. Insert the battery pack.
2. Position the sander upside down.

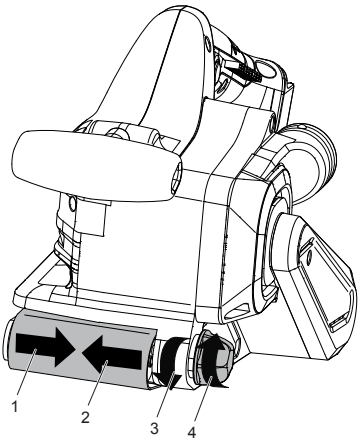
i NOTE

This position is for adjustments only. The sanding belt should not contact a workpiece or any foreign object when you are making belt tracking adjustments.

3. Depress the switch trigger and release immediately.



4. Choose one of these options:
   - Sanding belt runs inward: Turn the tracking knob slowly counterclockwise.
   - Sanding belt runs outward: Turn the tracking knob slowly clockwise.



1 Inward direction
2 Outward direction
3 Turn counterclockwise if belt runs inward
4 Turn clockwise if belt runs outward

i NOTE

Turn the tracking knob until you are sure the sanding belt is secure, i.e., it will not come off the sander or contact internal parts.

i NOTICE

If the sanding belt wears excessively on the inner edge it is probably adjusted too far inward and is rubbing against internal parts. If this is the case, readjust the tracking knob.

5. Start the sander and fine adjust the tracking knob until the belt stabilizes.

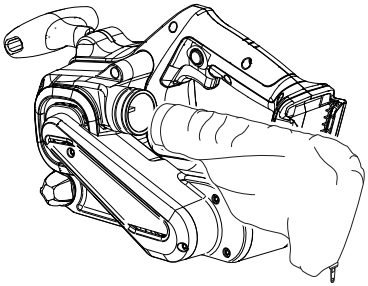
⚠ WARNING

Keep hands and fingers away from a moving sanding belt. Any part of the body coming in contact with a moving sanding belt could result in serious injury. Do not wear loose clothing or jewelry when operating the sander. They could get caught in moving parts and foreign objects could get thrown away from the sander causing injury.

9.7 ATTACH THE DUST COLLECTION BAG

⚠ WARNING

Do not use the dust collection bag when sanding metal. Using the dust collection bag when sanding metal creates a fire hazard, which could damage the tool and lead to serious personal injury.



1. Remove the battery pack.
2. Slide the dust bag retainer over the blower exhaust hole on the sander.

For more efficient operation, empty the dust collection bag when it is no more than half full. This action permits the air to flow through the bag better. Always empty and clean the dust collection bag thoroughly upon completion of a sanding operation and before placing the sander in storage.

⚠ WARNING

Collected sanding dust from sanding surface coatings such as polyurethanes, linseed oil, etc., can self-ignite in the sander dust collection bag or elsewhere and cause fire. To reduce the risk of fire, always empty the dust bag frequently (10-15 minutes) while sanding and never store or leave a sander without totally emptying its dust bag. Also follow the recommendations of the coatings manufacturers.

9.8 EMPTY THE DUST COLLECTION BAG

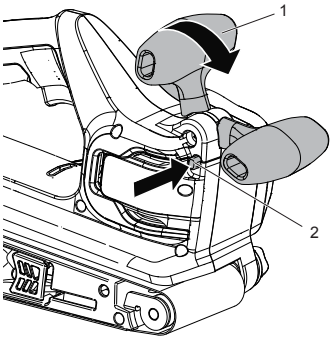
1. Remove the battery pack.
2. Remove the dust collection bag from the sander.
3. Unzip the dust bag.
4. Shake out the dust.

5. Zip up the dust bag.
6. Replace the dust collection bag.

i NOTE

Periodically, you should turn the dust bag inside out and thoroughly clean it.

9.9 ADJUST THE FRONT HANDLE



1 Adjustable front handle 2 Handle release button

1. Remove the battery pack.
2. Depress the handle release button and move the handle until it locks into one of the five possible positions.

i NOTE

Always make sure the handle is locked into one of the five lock positions.

10 OPERATION

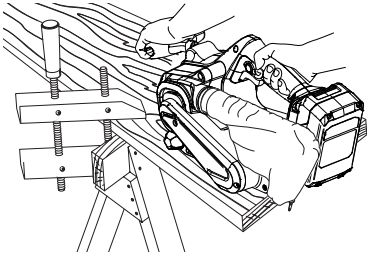
i IMPORTANT

Before you operate the machine, read and understand the safety regulations and the operation instructions.

⚠ WARNING

Be careful when you operate the machine and always observe your surroundings before operating tool.

10.1 OPERATE THE SANDER



⚠ WARNING

Unsecured work could be thrown towards the operator causing injury.

1. Secure the work to prevent it from moving under the sander.
2. Turn the sander on and let the motor reach its maximum speed before placing the sander on the work surface.
3. Lower the sander to the work surface with a slight forward motion.
4. Move the sander slowly over the work surface, using the rear handle to control the sander and the front handle to guide the sander.

i NOTE

Allowing the sander to remain in one place will result in an uneven surface.

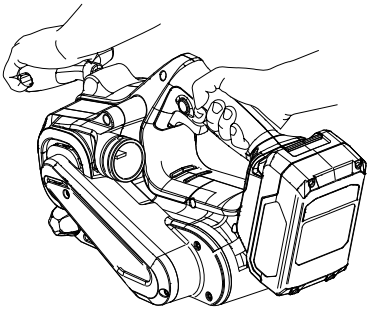
⚠ WARNING

Keep a firm grip on the sander with both hands at all times. Failure to do so could result in loss of control leading to possible serious injury.

The sander is designed to provide the proper weight on the sanding belt. Excessive pressure will result in the following:

- Uneven work
- Clogged sanding belts
- Premature sanding belt wear
- Possible motor burnout
- Irregular sanding belt tracking

10.2 PROPER HAND PLACEMENT



For ease of operation and maintaining proper control, the sander has a front handle and a rear handle. These handles allow two-handed operation, which aids in maintaining control, keeping the sanding area level with the workpiece, and keeping hands clear of the sanding belt. When operating the sander, always hold the front handle with your left hand and the rear handle with your right hand.

⚠ WARNING

Keep hands and fingers clear of moving sanding belt, front idler roller, and drive roller assembly. Failure to do so will result in serious personal injury.

⚠ WARNING

Do not let your fingers rest over the front or right edge of the sander. If the sanding belt should run off, or if it is not properly adjusted, your fingers could come in contact with the moving sanding belt, resulting in serious injury.

⚠ WARNING

The sander is designed to be operated as shown with both hands on the tool at all times for maximum control. Never operate the tool overhead or inverted from the proper operating position; serious personal injury may result.

10.3 HELPFUL TIPS

- If the sanding belt slips or does not track while sanding, you may be applying too much pressure. When this occurs, remove the sander from the workpiece. If you properly adjust the belt tracking, the sanding belt will return to its normal and correct position on the drive roller and front roller.
- Use a coarser sanding belt for heavy sanding, not heavy pressure. The weight of the tool is sufficient to provide adequate pressure at the correct location.
- The front roller of the sander is not designed for contour sanding. Sanding on the front roller could cause irregularity in the sanding belt tracking.

11 MAINTENANCE

⚠ WARNING

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

11.1 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.

12 TECHNICAL DATA

Voltage	24 V
Belt Size	3 in. x 18 in.
Sanding Surface	16.5 sq. in.
No Load Speed	850 ft./min.
Weight (without battery pack)	5.64 lbs (2.56 kg)
Battery model	LB24A020/BAG708 and other BAG series
Charger model	2978602/2903102 and other CAG series

13 LIMITED WARRANTY



Greenworks hereby warranties this product, to the original purchaser with proof of purchase, for a period of three (3) 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 purchased or rented for industrial/commercial use, and that have been maintained in accordance with the instructions in the owners' manual supplied with the product when new.

ITEMS NOT COVERED BY WARRANTY:

1. Any part that has become inoperative due to misuse, commercial use, abuse, neglect, accident, improper maintenance, or alteration; or
2. The unit, if it has not been operated and/or maintained in accordance with the owner's manual; or

3. Normal wear;
4. Routine maintenance items such as lubricants, blade sharpening;
5. Normal deterioration of the exterior finish due to use or exposure.

HELPLINE:

Warranty service is available by calling our toll-free helpline at 1-888-909-6757.

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.

USA address:	**Canadian address:**
Greenworks Tools	Greenworks Tools Canada, Inc.
P.O. Box 1238	P.O. Box 93095, Newmarket, Ontario
Mooresville, NC 28115	L3Y 8K3