

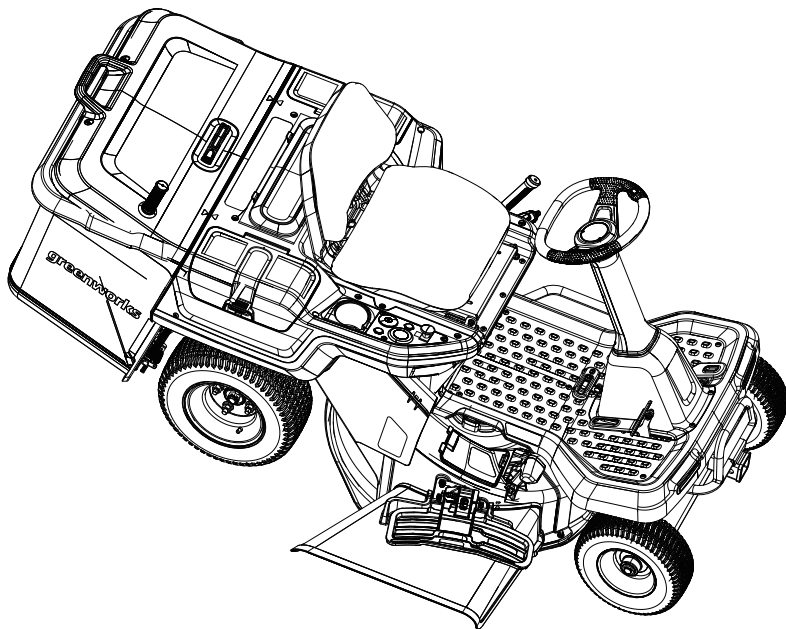
greenworks[®]

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RIDE ON MOWER

OPERATOR MANUAL



E8038

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1 INTRODUCTION

1.1 PRODUCT DESCRIPTION

This product is a battery-operated ride-on mower with electric motors.










We are committed to continuously improving our products and reserve the right to modify the design and appearance without prior notice.







1.2 INTENDED USE

The product is designed for efficiently cutting and maintaining grass on residential lawns and outdoor spaces. It is not designed for any other purpose.

1.3 SAFETY SYMBOLS ON THE PRODUCT

Read the safety decals before operating your product. The warnings have been developed for your safety. Understand and follow all safety decals to reduce the risk of a personal injury or property damage.

Symbol	Explanation
	Protection from splashing water.
	Type or a characteristic of current
	Indicates a potential personal injury hazard.
	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Wear ear protection.
	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Do not open or remove safety shields while the product is running.
	To reduce the risk of injury, keep hands and feet away from rotating parts. Do not operate unless discharge cover or grass bag is in its proper place. If damaged, replace immediately.
	Do not mow when children or others are around.

Symbol	Explanation
	Never carry children or anyone, even when the blades are off.
	Always look down and behind you when maneuvering in reverse or turning around. Make sure children, bystanders, and pets are clear of the area.
	Do not tow this product, it may cause damage to the drive system.
	Use extra caution on slopes. Do not mow slopes greater than 15 degrees. Do not use on slopes near open water.
	Remove objects that can be thrown by the blade in any direction. Wear safety glasses.
	Do not step.

1.4 ENVIRONMENTALLY SAFE BATTERY DISPOSAL



The toxic and corrosive materials below are in the batteries used in this product: **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.

2 SAFETY

2.1 SAFETY DEFINITIONS

Warnings, cautions, and notes are used to point out especially important parts of the manual.

▲ WARNING

THERE IS A RISK OF INJURY OR DEATH FOR THE OPERATOR OR BYSTANDERS, IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

▲ CAUTION

THERE IS A RISK OF DAMAGE TO THE PRODUCT, OTHER MATERIALS, OR THE ADJACENT AREA, IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

Note: Used to give more information that is necessary in a given situation.

2.2 GENERAL SAFETY WARNINGS

▲ WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this product.
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 "product" in the warnings refers to your mains-operated (corded) product or BATTERY-operated (cordless) product.

2.2.1 WORK AREA SAFETY

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

2.2.2 ELECTRICAL SAFETY

- **Product plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) product.** *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 the product to rain or wet conditions.** *Water entering a product will increase the risk of electric shock.*
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the product. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- **When operating the product 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 the product in a damp location is unavoidable, use a Residual Current Device (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*
- **Do not clean the product with water from a hose or a pressure washer.** *Water entering a product will increase the risk of electric shock.*
- **Do not operate the product in rain.** *Water entering a product will increase the risk of electric shock.*

2.2.3 PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating the product. Do not use the product while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating the product 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 product. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the product on.** A wrench or a key left attached to a rotating part of the product may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the product in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry.** Keep your hair, clothing away from moving parts. Loose clothes, jewelry 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.

2.2.4 PRODUCT USE AND CARE

- **Do not force the product. Use the correct product for your application.** The correct product will do the job better and safer at the rate for which it was designed.
- **Do not use the product if the switch does not turn it on and off.** Any product 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 product before making any adjustments, changing accessories, or storing the product.** Such preventive safety measures reduce the risk of starting the product accidentally.
- **Store an idle product out of the reach of children and do not allow persons unfamiliar with the product or these instructions to operate the product.** A product is dangerous in the hands of untrained users.
- **Maintain the product and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the operation of the product.** If damaged, have the product repaired before use. Many accidents are caused by poorly maintained product.

- **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 product, 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 product for operations different from those intended could result in a hazardous situation.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the product in unexpected situations.
- **Remove the key or disable the product when leaving the product unattended.** The product is dangerous to untrained users.

2.2.5 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 the product 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 product 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 product to fire or excessive temperature.** Exposure to fire or temperature above 265°F (130°C) may cause explosion.
- **Follow all charging instructions and do not charge the battery pack or product 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.

2.2.6 SERVICE

- **Have your product serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the product is maintained.

- **Never service damaged battery packs.** *Service of battery packs should only be performed by the manufacturer or authorized service providers.*

2.3 RIDE-ON MOWER SAFETY WARNINGS

- **Do not use the mower in bad weather conditions, especially when there is a risk of lightning.** *This decreases the risk of being struck by lightning.*
- **Thoroughly inspect the area for wildlife where the mower is to be used.** *Wildlife may be injured by the mower during operation.*
- **Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wires, bones, and other foreign objects.** *Thrown objects can cause personal injury.*
- **Before using the mower, always visually inspect to see that the blade and the blade assembly are not worn or damaged.** *Worn or damaged parts increase the risk of injury.*
- **Keep guards in place. Guards must be in working order and be properly mounted.** *A guard that is loose, damaged, or is not functioning correctly may result in personal injury.*
- **Keep all cooling air inlets clear of debris.** *Blocked air inlets and debris may result in overheating or risk of fire.*
- **While operating the mower, always wear non-slip and protective footwear. Do not operate the mower when barefoot or wearing open sandals.** *This reduces the chance of injury to the feet from contact with the moving blade.*
- **While operating the mower, always wear long pants.** *Exposed skin increases the likelihood of injury from thrown objects.*
- **Do not operate the mower on slopes greater than 15 degrees.** *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- **When working on slopes, always be sure of your footing.** *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- **Do not mow from side-to-side when operating mowers on unlevel or sloped ground. Always mow slopes in the up-and-down direction.** *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- **Do not touch blades and other hazardous moving parts while they are still in motion.** *This reduces the risk of injury from moving parts.*
- **When clearing jammed material or cleaning the mower, make sure all power switches are off and remove (or activate) the disabling device.** *Unexpected operation of the mower may result in serious personal injury.*

- Use extreme caution when reversing or pulling the lawnmower towards you. Always be aware of your surroundings.
- The user and technician **SHALL** carefully review **ALL** applicable original equipment manufacturer (OEM) safety-related repair manual procedures, training, and precautions before use, maintenance and service.

Note: *The user and technician should consult a medical professional if they have or are wearing:*

- An implanted defibrillator.
- A cardiac pacemaker.
- An internal analgesic medication pump.
- An insulin pump.
- Hearing aids.
- Other medical devices.

2.4 READ ALL INSTRUCTIONS

▲ DANGER

This mower was built to be operated according to the rules for safe operation that are contained in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This mower is capable of amputating body parts and throwing objects. Failure to observe the following safety rules could result in serious injury or death.

▲ WARNING

Basic safety precautions should always be followed when using lawnmowers in order to reduce the risk of fire, electric shock, and personal injury.

▲ WARNING

Use of this mower should be restricted to individuals who have read and understand and will follow the warnings and instructions that are printed in this manual and on the mower.

▲ WARNING

- Carefully read all instructions on the mower and in the manual before attempting to assemble and operate the mower.
- For safe operation, read, understand, and follow all instructions in this manual.
- Become familiar with all controls and their proper operation. Know how to stop the mower and how to disengage the power in an emergency.
- Keep this manual in a safe place for reference and consult it regularly.

2.4.1 GENERAL SAFETY

- Do not use battery-operated ride-on mower in rain.

- Only allow responsible, capable adults who are familiar with the instructions to operate this product.
- Safe operation requires your full attention and capabilities.
- Always look where you are going and be aware of your surroundings.
- Listen to the product and be aware of any change.
- Feel the product and its responses from both your inputs and the environment.
- Remain focused on your task.
- Always wear proper eye protection that complies with the latest safety standards in order to reduce the risk of eye injury while operating or performing any adjustment or repair. See ANSI Z87.1.
- Do not operate product unless discharge guard or other safety devices are in place and working.
- Always wear a face mask or a dust mask while operating the mower in a dusty environment.
- Always dress properly. The wearing of protective gloves and safety footwear is recommended.
- Never operate the product while using a mobile phone or any other electronic device. Operating while distracted can increase the risk of serious personal injury to the operator and bystanders.
- Do not operate the equipment while wearing sandals, tennis shoes, sneakers, shorts or any type of loose-fitting clothing. Wear safety shoes, hard hats, long pants, protective eyewear and hearing protection during operation to reduce the risk of personal injury. Avoid loose-fitting clothing, jewelry and any other apparel that could be caught on moving parts. Secure hair above shoulder level before starting work.
- Never carry passengers and keep bystanders away.
- Follow the manufacturer's recommendation for wheel weights or counterweights.

2.4.2 PREPARATION BEFORE OPERATING

- Clear the operating area of any objects which could be thrown by or interfere with operation of the product.
- Keep the area of operation clear of all bystanders, particularly small children. Stop the product and attachment(s) if anyone enters the area.
- Do not operate the product without the entire grass catcher, discharge chute, or other safety devices in place and functioning properly. Check frequently for signs of wear or deterioration and replace as needed.
- Wear appropriate personal protective equipment such as safety glasses, hearing protection, and footwear.
- Do not carry passengers anywhere on the product. Keep pets and bystanders out of the mowing area during operation.

2.4.3 OPERATING

- Never operate a poorly maintained product. Repair or replace any damaged components before restarting and operating the lawnmower.
- Always keep safety shields and covers in place.
- Follow daily and weekly checklists, making sure electrical connections are secured and bolts are tightened.
- Never operate mower without a proper trail shield, discharge cover, switch control, or other safety device in place and in working order. Do not operate the mower with damaged safety devices; doing so can result in injury.
- Minimize exposure to water. Do not drive into water. Do not leave in rain. Do not clean with pressurized water or hose.
- Always drive with both hands. Do not drive with just one hand.
- Only operate the product in daylight or good artificial light.
- Avoid holes, ruts, bumps, rocks, or other hidden hazards. Uneven terrain could overturn the product, or cause operator to lose their balance or footing.
- Do not put hands or feet near rotating parts or under the product. Keep clear of the discharge opening at all times.
- Do not direct discharge material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.
- Never attempt high-speed maneuvering, especially in crowded, congested areas or on slopes.
- Slow down before turning.
- In order to avoid contact with the blade or injury caused by a thrown object, stay in the operating zone behind the handles, and keep children and bystanders at least 100ft (30m) away from the mower while it is in operation. Stop the motor immediately if someone enters the mowing area.
- Do not leave a running product unattended. Always park on level ground, disengage the attachment, set parking brake, and stop product.
- Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade can amputate hands and feet.
- If the mower starts to vibrate excessively, stop the motor and check for the cause immediately. Excessive vibration is generally a sign the mower is not functioning properly.
- Stop the motor and wait until the blade comes to a complete stop before unclogging the chute. The cutting blade will continue to rotate for a few seconds after the motor is shut off. Do not place any part of your body in the blade area until you are sure that the blade has stopped rotating.

- If lawnmower strikes a foreign object, stop the product, rotate the ignition switch to OFF position, then, if it is safe, inspect for damage.
- Don't force the lawnmower.
- Do not use the mower for any job except that for which it is intended.
- Do not mow in reverse unless absolutely necessary. Always look down, behind and to the side before changing directions or backing up. A careless action can cause inflict death or severe injury within a fraction of a second.

2.4.4 CHILD SAFETY

Tragic accidents can occur if the operator is not aware of the presence of children. Children are often attracted to the product and the mowing activity. Never assume that children will remain where you last saw them.

- Never leave product unattended with key in switch, especially with children present.
- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
- Do not allow children under the age of 14 to operate this mower. 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.
- Always disengage deck blade switch and turn key to "OFF" position and remove key.
- Stay alert, and turn the mower off if a child or any other person enters the mowing 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 mower.
- Before and while backing, look behind and down for small children.
- Never carry children on the mower with you, even with the blade(s) shut off. They may fall off and be seriously injured or interfere with safe product operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the product.

2.4.5 USE A RAMP

- When loading or unloading the product from a trailer, always use full width ramps that extend beyond the width of the product.
- This provides a surface for the mower frame to contact if the unit starts to tip backwards. It also reduces the risk of a wheel going off and the product tipping over.
- Do not exceed a 15-degree angle between the ramp and the ground or between the ramp and the trailer or truck.

- Become familiar with the mower's controls and confident in its smooth operation before attempting to drive it up or down a ramp.
- Use slow drive mode and drive carefully.
- Avoid any sudden movement of the controls and use only slow, even acceleration.

2.4.6 TOWING

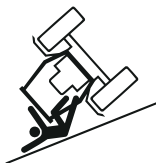
- Tow only with a product that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
- Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes. See **Rear Trailer Hitch** section. (Reference 6.1.2)
- Never allow children or others in or on towed equipment.
- On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
- Travel slowly and allow extra distance to stop.

2.4.7 BATTERY AND CHARGER

- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to battery, picking up or carrying the appliance. Carrying the appliance with your finger on the switch or energizing appliance that have the switch on invites accidents.
- Disconnect the battery from the appliance before making any adjustments, changing accessories, or storing appliance. Such preventive safety measures reduce the risk of starting the appliance accidentally.
- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery may create a risk of fire when used with another battery.
- Use appliances only with specifically designated batteries. Use of any other batteries may create a risk of injury and fire.
- When battery 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.
- 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 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 or appliance to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
- Follow all charging instructions and do not charge the battery or appliance outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Do not modify or attempt to repair the appliance or the battery (as applicable) except as indicated in the instructions for use and care.

2.4.8 SLOPE OPERATION



Slopes are a major factor related to accidents. Operation on slopes requires extra caution. To reduce the risk of injury, never operate the product under any condition where you experience wheel slipping or sliding, or where wheel traction or mower stability and control are in doubt. The product may slide even if the wheels are stopped. These conditions increase the risk of roll over.

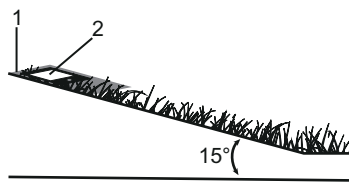
- Never operate on a slope greater than 15 degrees - a slope that has 1.6 metres of elevation change over any 6 metres segment. See **Slope Identification Guide** (Reference 2.4.9) in this Operator Manual.
- Always mow slopes in the up and down direction, never side to side.
- Reduce speed and use extra care when mowing on slopes. If you cannot back up the slope or if you feel uncomfortable, do not drive on the slope.
- Avoid turning the product down slopes. Turn up slopes.
- Always keep the product in gear when going down slopes. Do not coast downhill.
- Avoid starting and stopping on slopes. Avoid making sudden changes in speed or direction. Make turns slowly and gradually.
- Avoid mowing grass that is slippery, wet, or soft. Operating on wet or soft slopes can cause loss of control, which can lead to tip over.
- Use extra care while operating the product with a grass catcher or other attachments. They can affect the stability of the product.

2.4.9 SLOPE IDENTIFICATION GUIDE

▲ WARNING

To reduce the risk of serious personal injury or death, never operate on slopes greater than 15 degrees. Always check the degree of slope on the lawn surface before attempting to mow in that area.

- Download an inclinometer app onto your mobile device that measures slopes.
- Place a flat piece of wood or metal, 122-183 cm in length, on the surface of the slope.
- Open the app and place your phone (2) on the flat piece of metal or wood (1) to determine the exact slope of your lawn. Do not mow if the slope is greater than 15 degrees.



2.4.10 DROP-OFFS AND WATER

▲ WARNING

Drop-offs around steps and water are a common hazard. Never operate your mower down a slope towards water, a retaining wall, or other drop-off. Use extra caution when operating the mower in the vicinity of such hazards.

▲ WARNING

To reduce the risk of falling into water, down steps, or over the edge of a drop-off, always leave yourself two mower widths of clearance between your mower and the hazard. Failure to maintain sufficient clearance may result in serious injury, death, or drowning.

2.4.11 SAFETY INTERLOCK SYSTEM



This mower features a Safety Interlock System consisting of the parking brake, operator presence switch, PTO switch and start key to protect the operator and others from accidental injury due to unintentional start. Test the system before each use to ensure it is working properly.

1. The operator must be on the seat when testing the operator presence switch.
2. Insert the start key and turn to ON position.
3. Release the parking brake.
4. Pull the PTO switch to engage the blades.
5. Slowly stand up from the seat. The mower blades system should stop.

The blades should shut off within 3 seconds. If they don't, immediately contact customer service. Do not operate the mower until the safety interlock system has been repaired.

2.4.12 SERVICE

- Keep product in good working order. Replace worn or damaged parts.
- Use caution when servicing blades. Wrap the blade(s) or wear gloves. Replace damaged blades. Do not repair or alter blade(s).
- Do not charge ride-on mower in rain, or wet locations.
- Store idle ride-on mower indoors - When not in use, ride-on mower should be stored in an indoor dry and locked-up place - out of reach of children.
- Turn off and remove start key before servicing, cleaning, or removing material from the ride-on mower.

Save all warnings and instructions for future reference.

3 ASSEMBLY

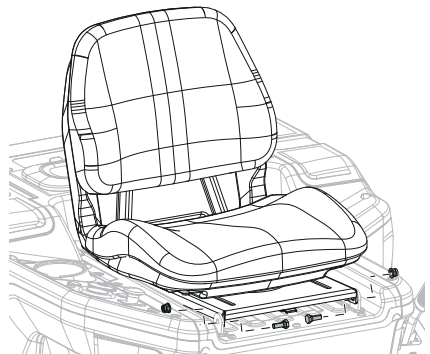
This section describes how to assemble and adjust the product.

▲ WARNING

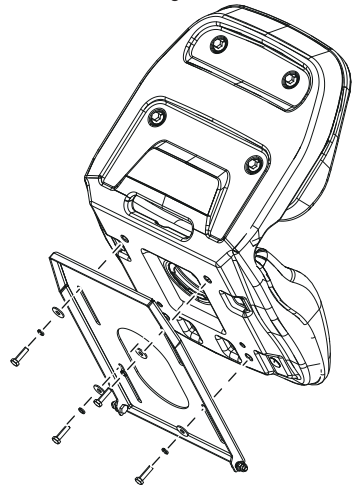
CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND THE ASSEMBLY INSTRUCTIONS BEFORE YOU ASSEMBLE THE PRODUCT.

3.1 INSTALL THE SEAT

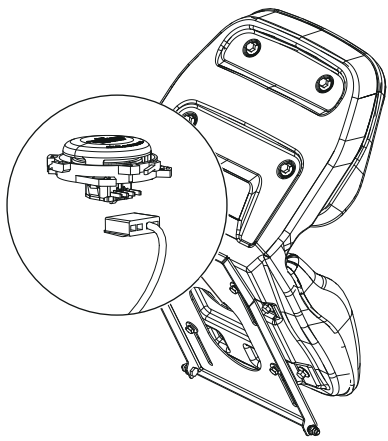
1. Install the seat assembly by securing the nuts and bolts.



2. Adjust the seat position by installing the bolts farther or closer from the steering wheel.



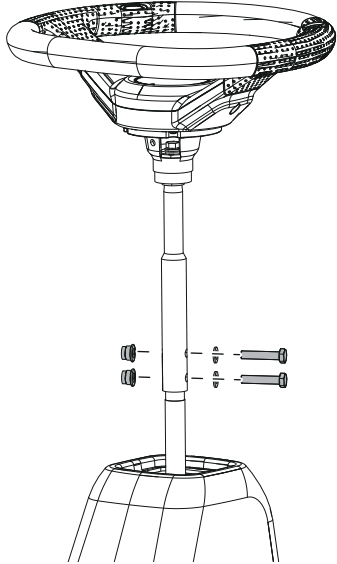
3. Connect the wire connector to the seat plug located under the seat.



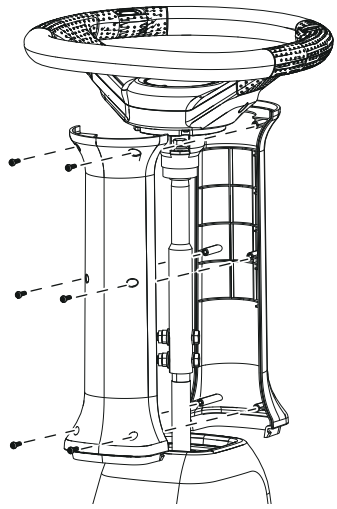
3.2 INSTALL THE STEERING WHEEL

Note: Before assembling, ensure that the mounting assembly is facing the seat.

1. Install the steering shaft into the coupler, aligning the holes in the shaft with the bolt holes in the coupler. Insert and securely tighten two M8 bolts and washers applying torque within the range of 20 - 25 N.m with 13 mm wrench.

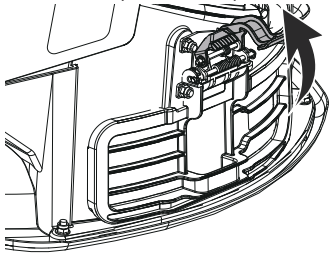


2. Join the two parts of the steering column. Insert six 16 mm screws into the mounting holes and use a T20 wrench to securely tighten to a torque range of 0.8 - 1.2 N.m.

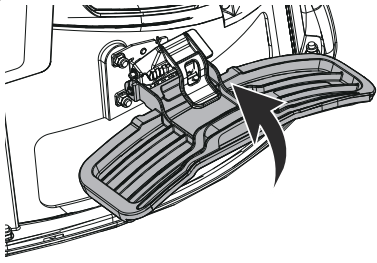


3.3 INSTALL THE SIDE DISCHARGE CHUTE

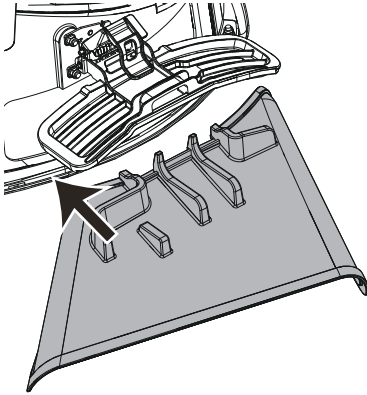
1. Lift the door clamp and hold in place.



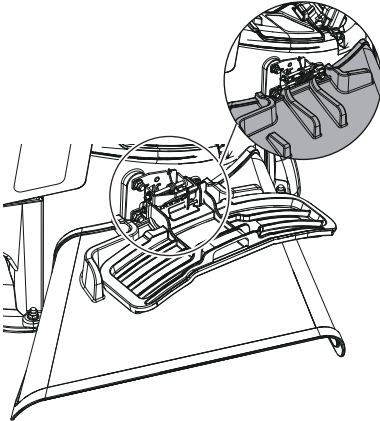
2. With your other hand, lift the side discharge door to expose the opening of the side discharge and hold in place.



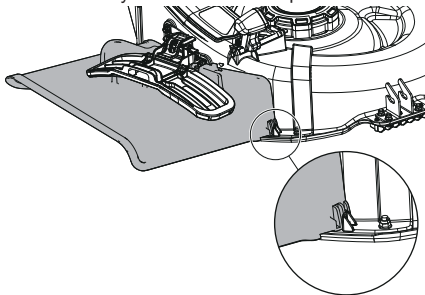
3. Mount the side discharge chute so that it fits over the opening.



4. Align the teeth on the side discharge chute to the spindle assembly for a secure fit.

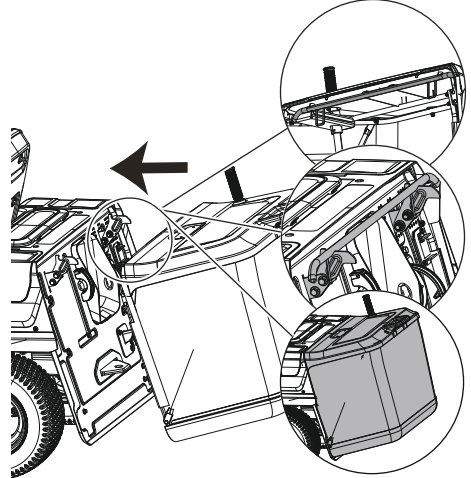


5. Inspect whether the side discharge chute is properly installed, make sure the chute is fit into the opening as below and adjust it if it touches the ground. Otherwise it may affect the normal operation.



3.4 INSTALL THE GRASS CATCHER

1. Install the grass catcher. Refer to the assembly guide of the grass catcher for more details to assemble.



Empty the grass catcher

When sitting on the seat, the operator can turn back to pull the reel handle out a little to make it easier to lift the bottom of grass catcher and empty it.

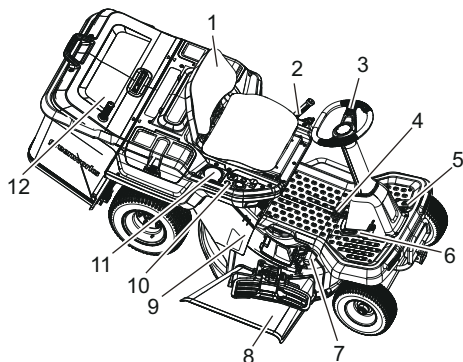


4 FEATURES AND CONTROLS

The following section provides a brief description of the function of individual controls. For information on

starting, stopping, driving, and mowing, refer to the **Operation** (Reference 6) section.

4.1 PRODUCT CONTROLS



- | | |
|--------------------------------|----------------------------|
| 1 Seat | 7 Discharge control handle |
| 2 Deck height adjustment lever | 8 Side discharge chute |
| 3 Steering wheel | 9 Rear discharge chute |
| 4 Parking brake pedal | 10 Control panel |
| 5 Brake pedal | 11 Cup holder |
| 6 Forward / Reverse pedal | 12 Grass catcher |

4.1.1 DECK HEIGHT ADJUSTMENT LEVER

Before using the mower, raise the deck height to the cutting position best suited for your lawn.

Cutting height is adjustable from 1-4 inch. Deck should be raised to avoid stumps, rocks or other obstacle that might damage mower deck.

▲ CAUTION

Grasp and securely hold the deck height adjustment lever when setting it, only releasing it once it's securely in the desired slot to avoid potential hand injury.

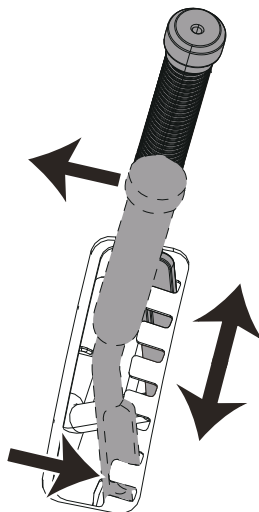
▲ CAUTION

Set the cutting height only when the mower is in the parked position or it will cause damage to the product and/or personal injury.

To adjust the cutting height:

1. Stop the mower and disengage blades.
2. Turn the key to OFF position and press and hold the parking brake pedal, then fully depress the brake pedal to set the parking brake.
3. Grasp the deck height adjustment lever and move it inwards to disengage it from the detent.

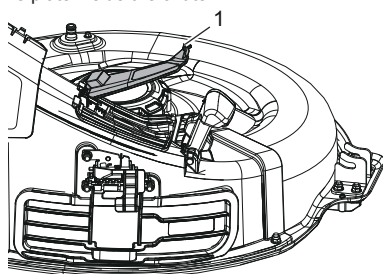
4. Move the deck height adjustment lever downward and upward, and engage it into the detent when it arrives at the desired cutting height.



4.1.2 REAR DISCHARGE CHUTE

The product is equipped with the rear discharge chute to collect the grass clippings and discharge them to the back of the product.

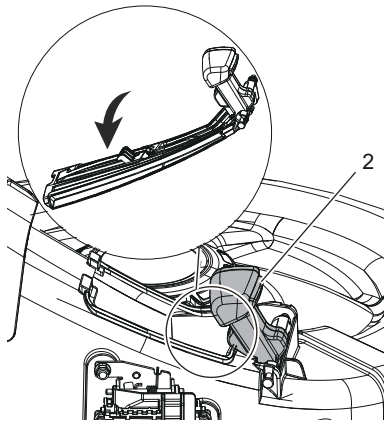
- Pull the tab backward (1) at the front side of the outlet plate to remove the plate, exposing the a baffle plate inside the chute.



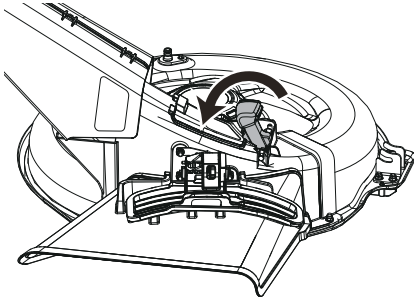
- The baffle plate is used to block or unblock the rear discharge chute. If the handle is in the forward position, the chute is open for discharging grass clippings to the back of the product.

Note: When the knob handle is in forward position, do not install the side discharge chute and keep the side discharge door closed.

- Press the release button (2) on the knob handle to pull the handle backward, the baffle plate will tilt down to block the rear discharge chute.

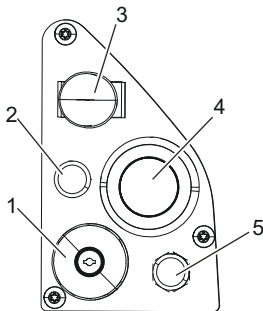


Note: When the knob handle is in rearward position, install the side discharge chute for side-discharging.



Note: Clear grass blockage by opening the outlet plate while side discharging.

4.1.3 CONTROL PANEL



1. Ignition Switch: This switch is used to turn the mower on and off. The start key must be inserted before the switch can be operated.

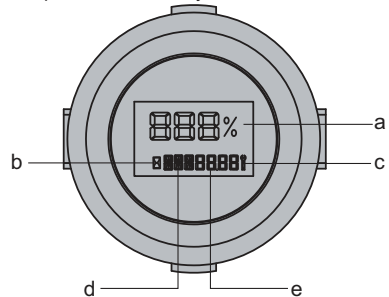
2. Low Speed Button: Press this button to switch the driving speed from 7.2 km/h to 4 km/h in mowing mode.

3. Pull-to-Operate (PTO) Switch: The PTO switch engages and disengages the mower blades. Pull UP on the switch to engage, and push DOWN to disengage.

▲ CAUTION

Do not engage PTO switch when the deck is under load. Failure to do so may damage the motor and/or deck.

4. Digital Display Screen: This digital display screen shows important electrical system information.



#	Symbol	Meaning
a		Battery level
b		Working hours indicator
c		Check controller, battery, or motor
d		Error details/ Product status: Drive (D), Neutral (N), Reverse (R) and Reverse mowing (RM)
e		Error code/ Total working hours

5. Reverse Mowing Button: Push to cut grass while going in reverse.

5 ELECTRICAL SYSTEM

5.1 ELECTRICAL SYSTEM SAFETY

To reduce the risk of serious personal injury from fire or electric shock when working on the electrical system:

- Always remove the start key and batteries, and read operator manual before working on this product.
- Always remove the start key and batteries when transporting the product.
- Keep the product free of grass clippings, leaves and other debris. DO NOT use water to clean the product. Use only compressed air. Wear adequate eye and hearing protection when cleaning the product.

- Always wear protective gear (safety glasses, face shield and gloves) when working with the battery. Use insulated tools.
- Clean the product of all dirt and debris. Do not use solvents, hard cleaners or abrasives.
- Keep the area clear of bystanders when engaging the PTO switch.
- Never allow flames, sparks or smoking near the product or batteries.
- Keep the product and batteries out of reach of children.
- Always keep protective shields, covers and guards in place and securely fastened. If they become damaged, repair or replace immediately. Never modify or remove safety devices.

5.2 ELECTRICAL SYSTEM INFORMATION

The product is powered by a 60-volt / 80-volt electrical system. It consists of the following components:

1. Blade and drive controller (1)
2. Blade motor (1)
3. Accelerator (1)
4. Digital display (1)
5. Wheel motor (1)
6. Battery compartment (2)
7. Headlights (2)

6 OPERATION

This section describes how to operate the product.

▲ WARNING

CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND OPERATION INSTRUCTIONS BEFORE YOU OPERATE THE PRODUCT.

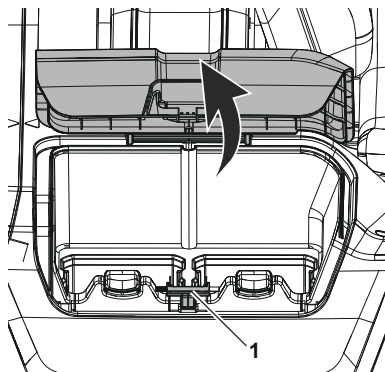
6.1 BEFORE OPERATION

6.1.1 CONNECT THE BATTERIES TO THE PRODUCT

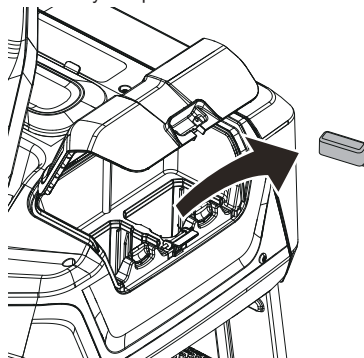
▲ WARNING

Only use genuine Greenworks batteries with the product.

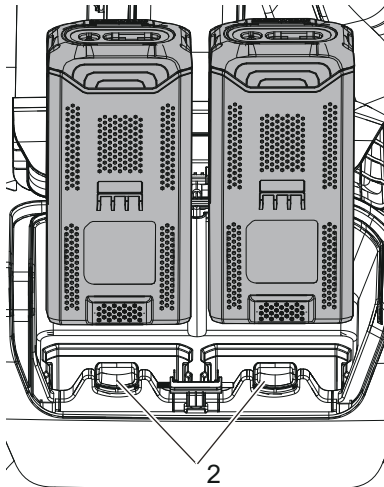
1. Press the release button (1) to open the battery cover.



2. Take out the batteries and remove the 2 foams in each battery compartment.



3. Make sure that the batteries are fully charged.
4. Push the batteries into the battery compartment. The battery locks into position when you hear a click.

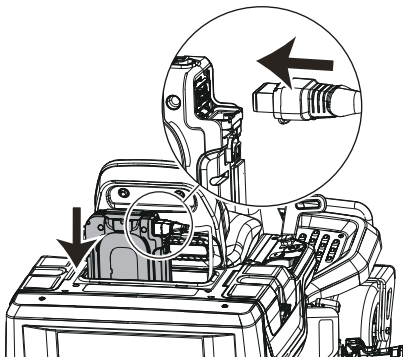


▲ CAUTION

If the battery does not move easily into the battery compartment, the battery is not installed correctly. This can cause damage to the product.

Note: Press the battery release button (2) to remove each battery.

5. A suitcase battery is optional for this mower. Open the suitcase battery compartment cover and push the suitcase battery (not provided) into it. Connect the plug to the suitcase battery.



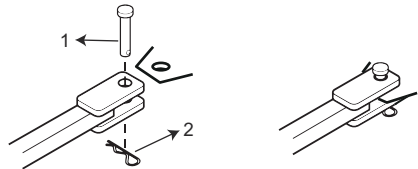
6.1.2 REAR TRAILER HITCH

▲ WARNING

Towing loads can be risky, especially on slopes.

- Max total weight (trailer & load) should not exceed 136 kg.
- Max tongue weight should be under 20.2 kg.
- Avoid slopes over 10 degrees.
- Slow down and be cautious on slopes.
- Do not tow with a grass catcher.

Secure the trailer using the appropriate clevis pin (1) and R pin (2).

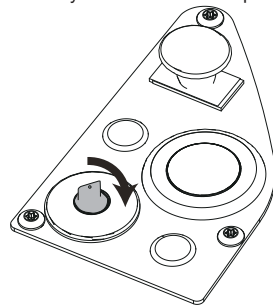


Excessive towed loads affect traction and control on slopes. Lighten the load on slopes. Surface conditions impact traction and stability. Wet or slippery surfaces reduce traction, impacting stopping and turning. Evaluate the terrain before using the unit and trailer, avoiding slopes steeper than 10 degrees.

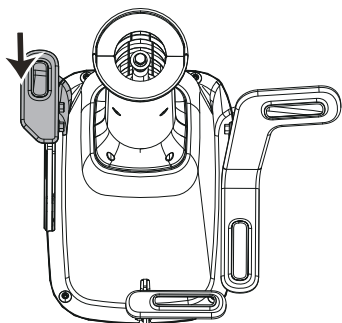
6.2 START THE PRODUCT

Note: Clear the area of bystanders before operating the mower. If anyone enters the mowing area, stop immediately and do not return to mowing until the bystanders leave the area.

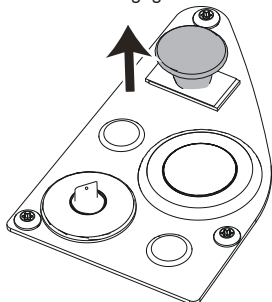
1. Raise the mower deck to its highest position. See **Deck Height Adjustment Lever** (Reference 4.1.1) under **Features and Controls**.
2. Insert the start key and turn to the ON position.



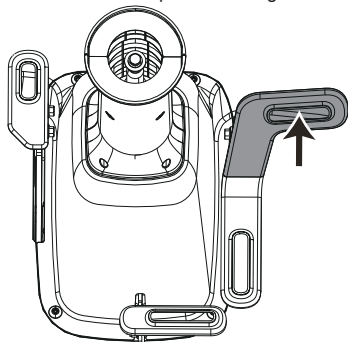
3. Tap the brake pedal to release the parking brake.



4. Pull the PTO switch to engage blades for mowing.



5. Step on the accelerator pedal and begin mowing.



▲ WARNING

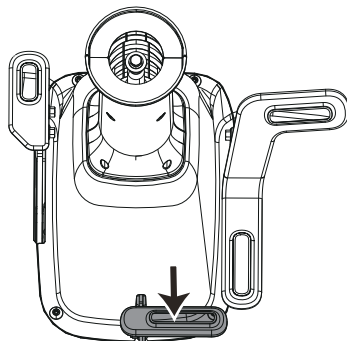
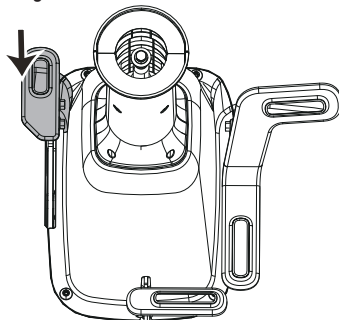
Use caution when crossing over gravel paths or driveways. Before crossing, disengage the blades and raise the cutting deck to the highest position to minimize the possibility of ricochet. Drive slowly to avoid loss of traction and control.

▲ CAUTION

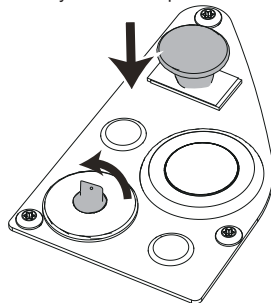
Do not attempt to change the driving direction (D/R) while the mower is in motion. Always come to a complete stop before changing the driving direction.

6.3 STOP THE PRODUCT

1. Stop the product on a flat, level surface.
2. Press the brake pedal to stop, then fully depress the parking brake pedal. Release the brake pedal, ensuring that the parking brake remains securely engaged. **Note:** Tap the brake pedal again to release the parking brake.

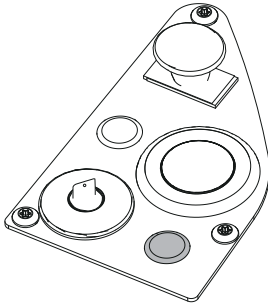


3. Push the PTO switch to disengage blades.
4. Turn the start key to the OFF position.

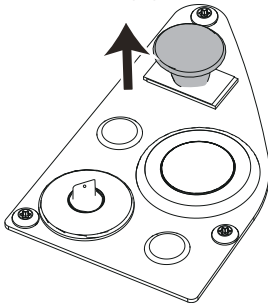


6.4 REVERSE MODE OPERATION

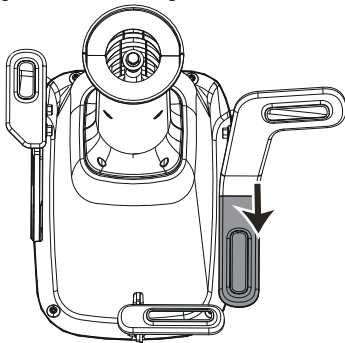
1. Press the reverse mowing button.



2. Pull the PTO switch to engage the blades.



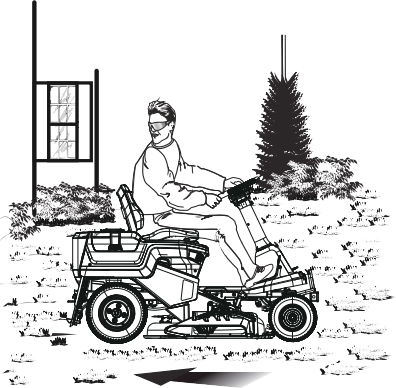
3. Use your heel to gently step on the reverse pedal to engage in reverse mowing as needed.



Note: When the PTO switch is reset from ON to OFF, or after the product is faulty and recovered, or after the tractor is changed to forward mode, if you need to mow reverse again, you need to repeat the above steps.

▲ WARNING

Do not mow in reverse unless absolutely necessary. Always look down, behind and to the side before changing directions or backing up. A careless action can cause inflict death or severe injury within a fraction of a second.

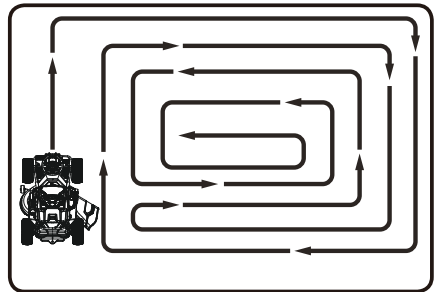


▲ WARNING

Exercise extreme caution before and when backing with the grass catcher kit (not provided) installed, as it may limit visibility. Always look closely behind and down for small children, bystanders, and pets and move the mower slowly to prevent accidents that can cause death or serious personal injury.

6.5 MOWING

Select a smooth, level area to mow. Be cautious of trees, fences, and slopes. Mow in straight lines, slightly overlapping. Occasionally change patterns to prevent flat spots. For a professional touch, mow across once and then go perpendicular on the next round.



When mowing expansive spaces, begin by turning towards the right to ensure that clippings are directed away from shrubs, fences, driveways, and other areas. After completing one or two rounds, mow in a back-and-

forth pattern across the lawn, pivoting at the edges of the previously mowed grass.

6.6 MOWING PATTERNS

6.6.1 SIDE-DISCHARGING

Side-discharging is a mowing technique that efficiently processes a larger volume of grass in a single pass. This method involves expelling grass clippings to the side of the mower deck and dispersing them across the lawn. The side-discharge deck design allows for effective cutting, making it ideal for larger areas where expedited mowing is essential. For optimal mowing, set blade speed to the highest speed (if applicable). If the motor slows, reduce drive speed. Slower drive speed boosts blade efficiency and prevents cutting issues. Choose side-discharging mowing for 75-125 mm grass. Avoid cutting more than 25mm at once.

6.6.2 MULCHING

Mulching offers versatile benefits, finely cutting grass and returning clippings to the soil. Remember, mulching works best on dry and moderate-height grass. For successful mulching, set the blade speed on the highest speed (if applicable) and match it with the slowest driving speed. This ensures finely cut clippings. When mulching, drive at about half the speed used for side discharging.

Optimal Clipping Length

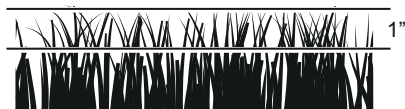
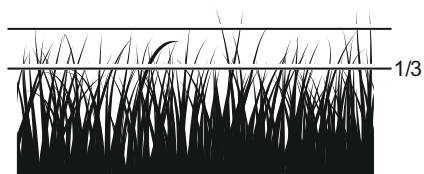
Ideal mulching trims just the top 12-20 mm of grass, resulting in decomposing clippings. Experiment with cutting height based on your climate, season, and lawn thickness. As always, mow thoughtfully and consider your lawn's unique conditions for the best results.

6.7 MOWING RECOMMENDATIONS

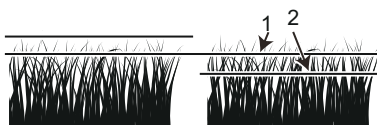
Multiple factors impact your mower's grass-cutting efficiency. Adhering to mowing guidelines enhances performance and longevity.

6.7.1 HEIGHT OF GRASS

Cutting height often depends on preference. Typically, mow when grass is 3-5 inches (7-12 cm) high. Proper height varies based on grass type, rainfall, temperature, and lawn health. Cutting too short weakens grass and makes it prone to damage by dry periods and pests. Slightly longer grass is less prone to damage. Longer growth in hot, dry conditions reduces heat stress, conserves moisture, and guards against damage. Keeping the grass too long leads to thin turf and problems. Don't cut too much at once; follow the 1/3 rule: trim a maximum of 1/3 and no more than 1 inch (3 cm) at a time.



Mowing capacity depends on your chosen mowing system. Broadcasting with side discharge decks handles more grass than mulching. Tall grass needs gradual cutting. For very tall grass, begin with max height (1), then lower it for the second (2) or third pass. Avoid leaving excessive clippings on top of the grass. Consider a grass collection system or composting. Remember, different systems are suited to different situations.



6.7.2 WHEN AND HOW OFTEN TO MOW

The timing and grass condition significantly influence mowing outcomes. Follow these guidelines for best results:

- Mow when grass height is between 75-125 mm.
- Use sharp blades for precision. Short clippings under 25 mm decompose faster, and sharp blades prevent frayed edges.
- Choose a cool and dry time of day for mowing, like late afternoon or early evening.
- Avoid mowing after rain or heavy dew. Never mulch wet grass as it clumps beneath the mower deck and doesn't mulch effectively.

7 TRANSPORTATION

7.1 TRANSPORT THE MOWER

▲ CAUTION

Do not tow this mower, it may cause damage to the drive system.

▲ WARNING

Do not load mower on a trailer or truck using two separate ramps. Only use a full-width ramp that is at least 305 mm (1 ft) wider than the width of the rear wheels of the mower. The rear wheels could fall off the ramps or the unit could tip over injuring the operator or bystanders. Ensure the cutting deck is raised to the highest position so it does not get caught on the ramp.

1. Park the mower on a level surface.
2. Raise the cutting deck to the highest position.
3. Position and secure ramp to the trailer according to manufacturer's instructions.
4. Use a full-width loading ramp that is at least 305 mm (1 ft) wider than the mower to reduce the risk of driving off the side of the ramp.
5. Slowly drive the mower onto the ramp and into the trailer.
6. Set the parking brake.
7. After loading, lower mower deck completely.
8. Secure the mower as needed using straps or cables to prevent movement during transport.

▲ WARNING

To avoid accidental starting or movement that could result in serious personal injury, always remove the start key and engage the parking brake when transporting the mower.

7.2 MOVING THE MOWER MANUALLY

To push the mower manually:

1. Disengage the mower blades and depress and hold the parking brake pedal, then fully depress the brake pedal to set the parking brake.
2. Turn the key to the OFF position. Remove the key, and wait for all moving parts to stop before leaving the operating position.
3. Release the parking brake.
4. Move the mower to the desired location.

▲ CAUTION

To avoid damage to the motor and drive system, do not move the product faster than 5 mph (8 km/h).

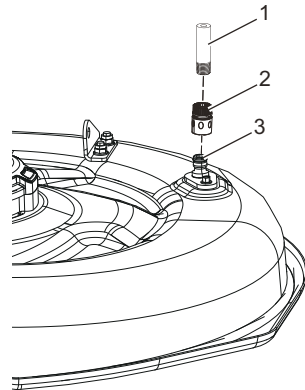
8 CLEAN AND STORAGE

8.1 CLEAN THE PRODUCT

- Remove any build-up of grass and leaves on or around the motor cover (Do not use water).
- Occasionally wipe the mower clean with a dry cloth.
- If debris builds up on the underside of the mower during use, stop the motor on level ground, disengage the blades, set the parking brake, shut

off the product, remove the start key and use the compressed air to clean the area.

8.2 CLEAN THE MOWER DECK



- Prepare the mower by parking it, setting the brake, and lowering the mower deck.
- Connect the hose (1) with quick-coupler (2) to the wash port (3), turn on the water, start the mower blades with increased speed, and flush under the deck for about one minute.
- Finish cleaning by disengaging the mower blades, turning off the water, and disconnecting the hose.
- Store the quick-coupler for future use.
- Shut down the mower completely.

8.3 STORE THE PRODUCT

The following steps should be taken in order to prepare the product for storage.

- **Clean the Mower:** Before storing the product, thoroughly clean it as outlined in the previous section.
- **Blade Inspection and Maintenance:** Inspect the blades and replace them as detailed in the **Service the Mower Blades** (Reference 9.7) section if needed.
- **Avoid Corrosive Materials:** Keep the mower away from corrosive substances, such as fertilizer or rock salt, as these can lead to rust and corrosion on metal components like the blade, deck, motor, and frame. Keep the mower and its battery away from conductive or corrosive materials to reduce the risk of short circuit, fire, explosion and other electrical hazards.
- **Children Safety:** Store the product in a location inaccessible to children to prevent accidents.
- **Proper Covering:** Do not cover the product with a solid plastic sheet. Plastic coverings can trap moisture, which causes rust and corrosion.

- **Check for Wear and Tear:** Thoroughly inspect the mower for any worn or damaged parts that may require replacement.
 - **Tire Maintenance:** Avoid deflating the tires during storage.
 - **Storage Environment:** Store the product in a well-ventilated, clean, and dry area. Note that the battery charger cannot be used in a wet environment.
 - **Charging Process:** Refer to the **Charging** (Reference 9.3) section and also the Battery Charger Manual for comprehensive instructions on using the charger and effectively charging the battery.
- Note:** *By adhering to these guidelines, you can help increase the longevity of your mower during periods of storage.*

9 MAINTENANCE

9.1 MAINTENANCE SAFETY

- Specific steps must be taken in order to perform service and maintenance procedures safely.
- Read and follow all the applicable safety and instructional messages in this manual.
- Always disengage the mower blades, set the parking brake, shut the mower off, remove the start key, remove the batteries and wait for all movement to stop prior to performing service and maintenance procedures.
- Wear appropriate personal protective equipment such as safety shoes, safety glasses, gloves and ear protection. Long hair, loose clothing or jewelry may get tangled in moving parts. Secure hair above shoulder level before starting work.
- Use of parts that are not authorized or approved by Greenworks may cause serious or fatal injury or property damage.

9.2 BATTERY MAINTENANCE

The mower is powered by Lithium-Ion batteries which, when maintained properly, will provide years of useful life. For proper care, adhere to the following instructions:

- Always charge battery after each use. This is especially crucial when temperatures drop below 32°F (0°C). Over-discharge will shorten battery life and risk permanent damage. If a full charging cycle is not possible immediately after cutting, a 5-10 minute cycle will help maintain battery health. Fully re-charge the battery within 24 hours after use. To maintain proper calibration, run and charge the mower at least once a month. Complete a full charge every six months.
- Keep grass, dirt and debris from collecting in battery area.
- Charge battery in an enclosed, dry area away from sparks and flames. Never expose charger to rain, water vapor or other liquids.
- Do not touch uninsulated portion of charger (terminal pins) or output connector.
- Do not use charger if cords are damaged.
- Please refer to the Battery Manual for more information of batteries.

9.2.1 ROUTINE MAINTENANCE

Routine maintenance should include cleaning and inspection.

- During the battery charging process:
 - Make sure the charging plug connects securely and fully in the socket;
 - Make sure the charger operates without faults;
 - Address any faults and have them repaired before charging.
- During the operation of the mower and when charging the battery, keep the charging port away from water and other conductive materials. Never charge when the mower is wet.
- Charging time will depend on a number of factors, including battery health, ambient temperatures and other factors. Monitor the battery for abnormal performance or behavior.

9.3 CHARGING

9.3.1 CHARGE THE BATTERY

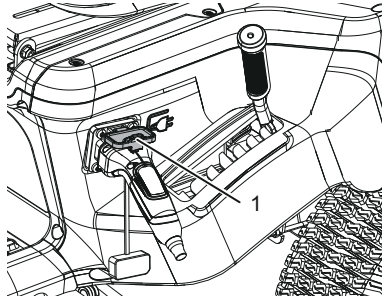
The batteries can be charged separately with specific charger (not provided).

Refer to the Battery Manual for more charging information of the batteries.

9.3.2 CHARGE THE PRODUCT

Open the port cover (1) to charge and close the cover once the charging is finished to reduce the risk of electric shock.

1. Open the port cover from the battery charging port on the mower.
2. Plug the charger into the battery charging port.
3. Plug the charger into a power outlet.
4. When the mower is charging, the digital display will show the battery percentage.



▲ WARNING

See the Charger Manual for warnings and instructions for charging. Read and understand all its safety warnings and instructions. Failure to follow them may result in electrical shock, fire and/or serious injury.

▲ WARNING

To reduce the risk of fire and explosion, keep open flames and sparks away from the mower and its battery. Ensure proper ventilation around the mower while charging.

Charging recommendations:

- The battery does not need to be fully discharged before recharging. To maintain proper state of charge calibration, run and charge the mower at least once a month. Complete a full charge every six months.
- A battery left uncharged will slowly discharge. Before initial use each spring season, be sure battery has a full charge before mowing.
- Check the battery every six months and charge the battery if the power level is below 50%.
- When the battery capacity is lower than 5%, the working blades will stop automatically. The max driving speed will be 4 km/h. The product should be charged immediately.

9.4 RECOMMENDED MAINTENANCE SCHEDULES

Maintenance Service Interval	Maintenance Procedure
Before each use or daily	<ul style="list-style-type: none"> Inspect the blades. Check the tire pressure. Check the contacts of switches and brakes. Check for frayed and deteriorated insulations. Clean under the cutting deck. Clean the area under the operator's seat and near the battery. Remove all grass clippings, leaves, and debris from the product before starting work.
Before storage	<ul style="list-style-type: none"> Remove the battery and key fob from the product. Perform all maintenance procedures and thoroughly clean the product. Inspect the entire product for damaged, missing, or loose parts, replace or tighten the corresponding ones before storage. Paint chipped surfaces.
After the first 100 hours	<ul style="list-style-type: none"> Check the wheel-lug nuts.

9.5 CHECK TYRE PRESSURE

For even mowing, it is crucial that all tyres maintain the correct air pressure. Refer to the table below for the recommended pressures.

Note: Measure or adjust tyre pressure only when the tyres are cold or haven't been recently driven.

Drive wheels	14 psi
Front wheels	40 psi

Note: Inspect the tyres daily. Replace immediately if damaged.

▲ WARNING

Check the tyre pressure carefully while inflating. Overinflating the tyre may lead to a burst, resulting in severe personal injury.

9.6 TORQUE VALUES

▲ WARNING

Particular attention must be given to tightening the drive wheel lug nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage and/or personal injury.

Torque values are given below:

Part	N.m
Wheel lug nuts	90-100
Blade spindle bolts	155-160

Wheel lug nuts only: It is recommended that these be checked after the first 2 hours of operation initially, then every 100 hours and following removal for repair or replacement.

9.7 SERVICE THE MOWER BLADES

9.7.1 MOWER BLADE MAINTENANCE

Inspect the mower blades on a daily basis. They are crucial for power efficiency and optimal mowing. Ensure they are sharp, as a dull blade can cause tearing instead of cutting, resulting in a brown and ragged appearance on the

grass within a few hours. Additionally, a dull blade requires more power. Replace any blades that are bent, cracked, or broken.

▲ WARNING

Never attempt to straighten a bent blade by heating, or weld a cracked or broken blade as the blade may break and cause serious injury. Replace worn or damaged blades.

▲ WARNING

Never work with blades while the start key is in the ignition switch. Turn the start key to "OFF" position, remove the batteries from the product. Support the mower with certified jack stands when working beneath it. Wear gloves when handling blades. Always check for blade damage if mower strikes a rock, branch or other foreign objects!

- The blade sail (curved part) must be pointing upward toward the inside of the deck to ensure proper cutting.
- Rotate blades after installation to ensure blade tips don't touch each other or the sides of the mower.
- Ensure correct torque on the bolt to prevent potential blade loss, which may result in serious injury.
- Mower blades are sharp and capable of cutting. Always wear gloves and exercise extra caution during servicing.

9.7.2 REMOVE THE BLADES

▲ WARNING

Mower blades are sharp. Always wear gloves when handling or working near mower blades.

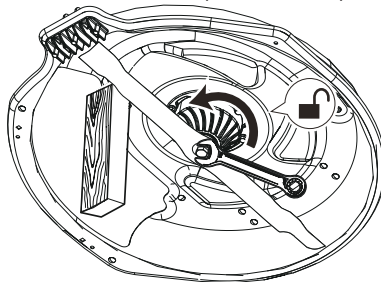
1. Park the mower on a flat level surface and set the parking brake. Shut off the mower, remove the key and remove the batteries from the product.
2. Raise the height of the cutting deck to its highest position to allow access to blades.

Note: If necessary, lift the mower using a certified lift, jack, and jack stands, or remove the cutting deck to reach the blades. Ensure that the jack stands prevent product from moving. Use only certified jack stands in pairs and adhere to the manufacturer's instructions.

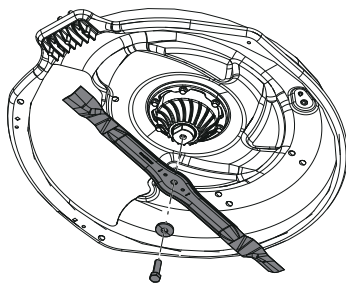
▲ WARNING

If raising the mower to access the blades, make sure the mower is properly secured and the parking brake is set before proceeding. Failure to properly secure the mower could cause it to fall, resulting in death or serious personal injury.

3. Place a block of wood between the blade and the deck to prevent it from spinning while you work.



4. Loosen the blade nut by turning it counterclockwise (as viewed from bottom of mower) using a 24 mm wrench or socket (not provided).
5. Remove the blade bolt, spacer, blade, and blade support.



9.7.3 INSPECT THE MOWER BLADES

A worn or damaged mower blade has the potential to break, leading to fragments being propelled into the operator's or bystander's area, causing severe personal harm or death. Inspect it before each use. Halt operation if the mower hits an object and inspect for damage.

▲ WARNING

Mower blades are sharp. Always wear gloves when handling or working near mower blades.

- Remove the mower blade from the mower. See **Remove the Blades** (Reference 9.7.2).
- Inspect the mower blades to assess whether they are blunt and require sharpening or display signs of damage and should be replaced. Blades showing cracks, corrosion, rust, excessive wear or bending should be discarded.

9.7.4 INSTALL THE BLADES

▲ WARNING

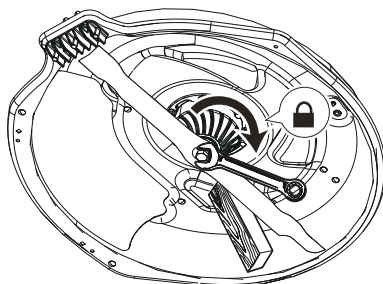
Mower blades are sharp. Always wear gloves when handling or working near mower blades.

1. Install the new blades following the specified sequence: blade support, blade, spacer, and blade bolt. Ensure that the blade sail (curved part) is pointing upward toward the inside of the deck.

▲ WARNING

Incorrect orientation of the blades can damage the cutting deck and impact the mower's stability which can affect operator's safety.

2. Securely tighten the blade bolts by rotating clockwise with a 24 mm socket or wrench. Torque to 115 -118 Ft-lbs (155-160 N.m).



▲ WARNING

Incorrect orientation of the blades can damage the cutting deck and impact the mower's stability which can affect operator's safety.

Note: Make certain all parts are replaced in the exact order in which they were removed.

10 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Product won't move.	There is no battery installed in the battery compartment or the battery is not an official Greenworks battery.	Use only official Greenworks battery (or batteries). At least one is required for operation.
	Battery is not charged.	Charge the battery.
	No one is sitting on the seat or the operator presence switch is not functioning properly.	Make sure the driver is sitting on the seat or ensure that the cable connector is properly plugged to the seat plug.
	The parking brake is engaged.	Make sure you fully disengage the parking brake, so the wheels can rotate freely.
	The battery compartment is in dormant state.	Turn the start key to the OFF position and wait for more than 5 seconds before restarting the product.
Product suddenly stops during driving	Battery is not charged.	Use only official Greenworks battery (batteries). At least one fully-charged battery is required for operation.
	Riding on rough and uneven road conditions cause the operator presence switch to disconnect.	Engage the parking brake, make sure the cable connector is securely attached to the seat plug located under the seat, then restart the product.
	Accelerator pedal failure.	Contact Greenworks after-sales service center.
	Drive controller failure.	Contact Greenworks after-sales service center.
The blade does not operate after pulling the PTO switch.	There is no battery installed in the battery compartment or the battery is not an official Greenworks battery.	Use only official Greenworks battery (batteries). At least one fully-charged battery is required for operation.
	The battery power is lower than 5%.	Check the battery power, if the battery power is low, charge the battery.
	The operator presence switch is not functioning properly.	Ensure the driver is sitting on the seat.
	The blade switch (PTO) is not in the correct position before powering on.	Push the PTO and pull it up again.
	Blade motor blockage or other functional protection.	Make sure there are no weeds or foreign objects at the connection point between the blade and the motor. It is recommended to raise the deck and start the blade to ensure normal operation before adjusting the deck height.
	Drive controller is malfunctioning.	Check the error code on display. Contact Greenworks after-sales service center.
The blade stops when mowing grass.	Blade controller is malfunctioning.	Check the error code on display. Contact Greenworks after-sales service center.
	Blade motor overload.	Clean the inside of the deck, make sure there is no abnormal blade rotation, press the PTO switch, restart the product and reduce the blade load, either by raising the deck or reducing the driving speed.
	Battery temperature is too high.	Do not use the product immediately after charging, otherwise it may trigger the battery temperature protection error.
	The battery power is lower than 5%.	Charge the battery.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
	The blade is hit by a foreign object, causing a sudden stop.	Turn the start key to the OFF position and wait for more than 5 seconds before restarting the product.
	Drive controller is malfunctioning.	Check the error code on display. Contact Greenworks after-sales service center.
The mower cuts the grass unevenly, and the height difference is very large.	The blade is blunt.	Sharpen the blades.
	Blade is bent.	Replace the blade according to the manual instructions, and wear protective gear.
	Uneven deck.	Level the deck.
The actual mowing height does not match the marked mowing height chosen.	Deck mounting bolts are loose.	Securely tighten deck mounting bolts. Note: The deck needs to be re-leveled after adjusting the mounting bolts.
	The deck is seriously worn or damaged.	Replace the deck.
Abnormal product shredding	The grass is too wet.	Wait until grass is dry.
	The grass is too tall/dense.	Raise the deck and cut grass with multiple passes, adjusting the height accordingly.
Excessive product vibration	Blade bolts are loose.	Tighten the blade.
	Blade is bent.	Replace the bent blade according to the manual instructions, and wear protective gloves.
	Uneven deck.	Level the deck.
	Deck mounting bolts are loose.	Securely tighten deck mounting bolts. Note: The deck needs to be re-leveled after adjusting the mounting bolts.
	The grass is too tall/dense.	If the grass is too dense and high, please raise the deck, try to avoid cutting heavy grass.
Grass leaves or debris left on the ground after mowing.	The grass is too tall/dense.	Raise the deck and cut grass with multiple passes, adjusting the height accordingly.
	The grass is too wet.	Wait until grass is dry.
	Driving speed is too high.	Lower the driving speed.
	Blade cutting speed is too low.	Increase the blade speed (if applicable).
Short mowing duration	Grass is too tall/dense.	Raising the deck or decrease blade speed (if applicable) to increase the mower's usage time on one charge.
Mower runaway	Different tire pressure	Check the rear tire pressure of the mower regularly according to the manual instructions.
Product won't start after washing.	Improper cleaning, leading to water entering: the digital display screen, battery compartment, and/or other electronic components.	<ol style="list-style-type: none"> 1. Follow the instructions to clean the product. 2. If the product is accidentally drenched, store the product in a dry place for 12 hours or blow dry before restarting. 3. Contact Greenworks after-sales service center if the problem persists.
The mower is blocked.	Weeds and debris build up on the deck.	Follow the instructions to clean the product after each use.
Product with parking brake slides on slope.	Severe tire wear.	Contact the Greenworks after-sales service center to replace the tires.
	The parking brake is damaged or terribly worn.	Contact the Greenworks after-sales service center to replace the parking brake.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
	The parking brake is manually released.	Check the parking brake and reset it to the initial position. Contact Greenworks after-sales service center if the problem persists.
Poor front wheel steering	Check for foreign objects stuck in the gear mesh.	Clear foreign objects.
	Lack of lubrication.	Add lubrication.
	Check steering head, joint bearing parts for damage or deformation.	Replacing damaged parts or contact Greenworks after-sales service center.
Drive Axle Mal-function	Gear oil leaks.	Contact Greenworks after-sales service center.
	Wheel hub heat	
	Unusual noises	
Failure of front wheel steering	The meshing gear set is worn from long time use.	Replacing the meshing gear set.
	Steering head, knuckle bearing bolts loose.	Check for loose steering tie rod lock nuts. Contact Greenworks after-sales service center to tighten.

11 TECHNICAL DATA

Model No.	CRT306(TYPE 2)	
Voltage	60 V	
Length(without grass catcher)	64.8 inch/164.7 cm	
Height	41.7 inch/106 cm	
Width (with discharge)	43 inch/109 cm	
Deck width (without discharge)	30 inch/76.2 cm	
Driving speed	9.6 km/h	
Mowing	Forward speed	4/7.2 km/h
	Reverse speed	4 km/h
Blade speed	2400 rpm	
No load speed	2400 rpm	
Charging time	4 h (with 600 W charger)	
Charger model	CH60LV00 and other CAC series	
Battery model	2935807AU, 2941307AU and other BAC series	

The recommended ambient temperature range

Item	Temperature
Product storage temperature range	0°C – 45°C
Product operation temperature range	0°C – 45°C
Battery charging temperature range	4°C – 40°C
Charger operation temperature range	4°C – 40°C
Battery storage temperature range	0°C – 45°C
Battery discharging temperature range	0°C – 45°C

12 WARRANTY

Greenworks hereby warrants this product, to the original purchaser with proof of purchase, for a period of three (3) years against defects in materials, parts or workmanship. And the warranty is four (4) years on batteries and two (2) years on charger (consumer /

private usage). 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.

13 ERRORS

The CANBUS system will take action to protect the user and product when it detects an issue. When it acts to turn off the product or a component, it will indicate that an error has occurred, and that error will be shown on the digital display. All electrical errors have a letter code followed by a number. The first letter describes the system that caused the error according to this chart:

Name	Meaning
T	Driver Controller and motor
PMU	Power management unit (in the battery compartment)
M	Blade controller and motor

13.1 ERROR CODE

Error Code	Description	Solution
T2	Drive motor stalled	Check if the drive wheels are stuck and restart the power supply.
T5	Motor encoder error	Check that the connector of drive controller is properly connected, and then restart the power supply.
T6	Controller phase loss	Check that motor cables of the drive controller are connected properly, and then restart the power supply.
T7	MOSFET open circuit error	If you encounter this issue, contact your distributor for a solution.
T8	Controller undervoltage	The voltage is too low. Charge the battery before use.
T9	Controller overvoltage	The voltage is too high. Restart the power supply.
T12	Motor overtemperature	The motor temperature is too high. Wait for the motor to cool down, and then restart the power supply.
T13	Controller overtemperature	The controller temperature is too high. Wait for the controller to cool down, and then restart the power supply.
T15	Hardware overcurrent	The load is too high. Restart the power supply.
T16	Accelerator error	Check that the accelerator of lever is connected properly, and then restart the power supply.
T19	Operating sequence error	Do not press the accelerator pedal when starting the product.
T23	Battery compartment (PMU) communication failure	Communication failure with battery compartment. Restart the power supply.
T24	Battery compartment (PMU) failure	Minor/major error in battery compartment. Perform a check and restart the power supply.
T31	Seat switch abnormal	Check that the connector under the seat is connected properly, and then restart the power supply.
T32	Software authentication error	Restart the power supply.
T63	Drive motor temperature sensor fault	Check if the 6-pin connector of the drive motor is properly connected. If the error is not cleared after restarting, please contact your distributor for a solution.
M2	Drive motor stalled	Check if the drive wheels are stuck and restart the power supply.
M3	Motor low speed protection	Restart the power supply.
M4	Blade motor overspeed error	1. Reset the PTO switch. 2. Restart the vehicle. 3. Replace the controller.
M6	Controller phase loss	Check that motor cables of the drive controller are connected properly, and then restart the power supply.
M7	MOSFET open circuit error	If you encounter this issue, contact your distributor for a solution.
M8	Controller undervoltage	The voltage is too low. Charge the battery pack before use.
M9	Controller overvoltage	The voltage is too high. Restart the power supply.
M13	Controller overtemperature	The controller temperature is too high. Wait for the controller to cool down, and then restart the power supply.
M15	Hardware overcurrent	The load is too high. Restart the power supply.
M19	Operating sequence error	Please restore the blade switch to its initial position. Check that the grass-collecting switch is connected properly and if the grass catcher or rear cover is pressing down on the grass collection switch. Sit on the seat and try again.

Error Code	Description	Solution
M26	CAN timeout error - drive	Communication error with the drive controller. Restart the power supply.
M31	Blade switch signal abnormal	Check that the Blade switch is connected properly, and then return the switch to its initial position.
M32	Software authentication	1. Restart the vehicle. 2. Replace the controller.
M33	Grass-collecting switch signal abnormal	Check that the Grass-collecting switch is connected properly.
M34	Controller temperature sensor error	1.Restart the controller. 2. Replace the controller.
PMU10	Open circuit in battery pack in PMU	Unconnected battery pack in battery compartment; product performance may be affected.
PMU1	Overcurrent-Level1	The PMU load is too high. The error will automatically resolve itself when the load drops.
PMU2	Overtemperature-Level1	The PMU temperature is too high. The error will automatically resolve itself when the temperature drops.
PMU3	Overtemperature in feedback module-Level1	The error will automatically resolve itself when the temperature drops.
PMU32	Overcurrent-Level2	The PMU load is too high. Restart the power supply.
PMU33	Hardware overcurrent	The PMU load is too high. Restart the power supply.
PMU34	Hardware overcurrent	Restart the power supply.
PMU35	Overtemperature-Level2	The PMU temperature is too high. Wait until the temperature drops, then restart the power supply.
PMU36	Undervoltage	The voltage is too low. Charge the battery pack and try again.
PMU37	Overvoltage	The voltage is too high. Restart the power supply.
PMU38	Power supply output failure	Restart the power supply.
PMU39	Overtemperature in feedback module-Level2	Wait until the temperature drops, then restart the power supply.
PMU40	Power resistor overtemperature in feedback module	Wait until the temperature drops, then restart the power supply.
PMU41	No battery pack available	Check that you are using the correct battery pack, and then restart the power supply.
PMU42	Battery pack low temperature	Ensure that the ambient temperature is above 0 degrees Celsius.
PMU43	Battery pack communication error	Replace the battery pack.
PMU44	Microcontroller self-test error	Restart the power supply and contact your distributor for a solution.
PMU45	Battery pack high temperature	Wait until the temperature drops, then restart the power supply.
PMU46	Power circuit error	Contact your distributor for a solution.
PMU47	Pre-charge error	Restart the power supply and contact your distributor for a solution.
PMU48	Pre-charge hardware error	Contact your distributor for a solution.
PMU49	Negative MOS temperature sensing error	Contact your distributor for a solution.
PMU50	Feedback MOS temperature sensing error	Contact your distributor for a solution.

Error Code	Description	Solution
PMU51	Driver voltage error in feedback module	Contact your distributor for a solution.
PMU52	Current sensor error	Contact your distributor for a solution.
PMU53	Power resistor driver error in feedback module	Contact your distributor for a solution.
PMU54	Busbar current BIAS	Contact your distributor for a solution.
PMU55	CAN hardware error	Contact your distributor for a solution.
PMU56	Other error	Restart the power supply.
PMU57	KSI Pre-MOS error	Contact your distributor for a solution.
PMU58	Flip cover error	Restart and check the seat switch connector.
PMU59	KSI MOS error	Contact your distributor for a solution.
PMU61	1# Battery pack does not match	Please select the right battery pack.
PMU62	2# Battery pack does not match	Please select the right battery pack.
PMU65	5# Battery pack does not match	Please select the right battery pack.
PMU66	6# Battery pack does not match	Please select the right battery pack.
PMU67	Abnormal charging status	Check if the charging socket is properly connected or check if the charger input plug is properly inserted.

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