



OPERATOR'S MANUAL

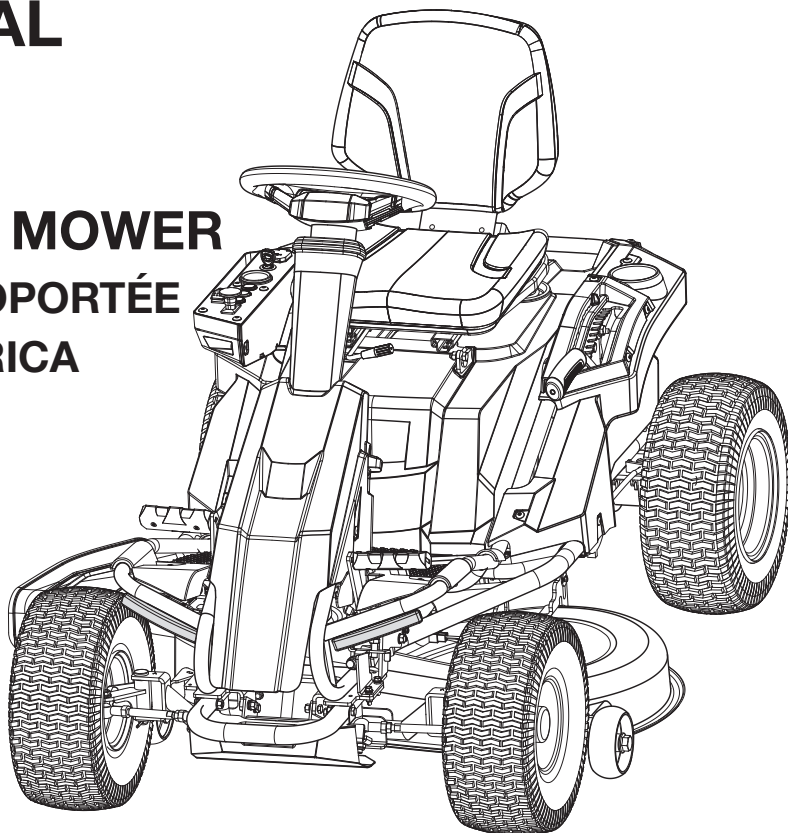
MANUEL D'UTILISATION
MANUAL DEL OPERADOR

ELECTRIC RIDING LAWN MOWER

TONDEUSE ÉLECTRIQUE AUTOPORTÉE
PODADORA DE PASTO ELÉCTRICA
TIPO TRACTOR

RY48110/RY48111/RY48112

RM480e/RM480ex
SERIES/SÉRIE/SERIE



Your riding lawn mower has been engineered and manufactured to our high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

⚠ WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

SAVE THIS MANUAL FOR FUTURE REFERENCE

Ce tondeuse autoportée a été conçu et fabriqué conformément à nos strictes normes de fiabilité, simplicité d'emploi et sécurité d'utilisation. Correctement entretenu, cet outil vous donnera des années de fonctionnement robuste et sans problème.

⚠ AVERTISSEMENT : Pour réduire les risques de blessures, l'utilisateur doit lire et veiller à bien comprendre le manuel d'utilisation avant d'employer ce produit.

Merci de votre achat.

Su podadora de pasto tipo tractor ha sido diseñado y fabricado de conformidad con nuestras estrictas normas para brindar fiabilidad, facilidad de uso y seguridad para el operador. Con el debido cuidado, le brindará muchos años de sólido funcionamiento y sin problemas.

⚠ ADVERTENCIA: Para reducir el riesgo de lesiones, el usuario debe leer y comprender el manual del operador antes de usar este producto.

Le agradecemos su compra.

**CONSERVER CE MANUEL POUR
FUTURE RÉFÉRENCE**

**GUARDE ESTE MANUAL PARA
FUTURAS CONSULTAS**

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INTRODUCTION

INTRODUCTION / INTRODUCCIÓN

This product has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

* * *

Ce produit offre de nombreuses fonctions destinées à rendre son utilisation plus plaisante et satisfaisante. Lors de la conception de ce produit, l'accent a été mis sur la sécurité, les performances et la fiabilité, afin d'en faire un outil facile à utiliser et à entretenir.

* * *

Este producto ofrece numerosas características para hacer más agradable y placentero su uso. En el diseño de este producto se ha conferido prioridad a la seguridad, el desempeño y la fiabilidad, por lo cual se facilita su manejo y mantenimiento.

IMPORTANT SAFETY INSTRUCTIONS



WARNING:

READ AND UNDERSTAND ALL INSTRUCTIONS.

Failure to follow all instructions listed below and on the machine could result in electric shock, fire, serious personal injury and/or death.

READ ALL INSTRUCTIONS

- This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe all safety instructions could result in serious injury or death.
- Avoid dangerous environment — Do not use the lawn mower in damp or wet conditions or operate in the rain.
- Keep children away — Keep all bystanders, children, and pets at least 100 ft. away. Stop the mower and turn off the machine if anyone enters the area.
- Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. **NEVER** assume that children will remain where you last saw them.
- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.



- Be alert; stop and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children, bystanders, and pets.
- Be especially careful before and when backing with the bagger kit installed, as it may limit visibility. Always look closely behind and down for small children, bystanders, and pets, and move the mower slowly.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine 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 machine.
- Never allow children to operate the machine.



WARNING:

CHILDREN CAN BE KILLED OR SERIOUSLY INJURED BY THIS EQUIPMENT.

The American Academy of Pediatrics recommends that children be a minimum of 16 years of age before operating a riding lawn mower.

- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.
- Dress properly — Do not wear loose clothing or jewelry. They can be caught in moving parts. The use of rubber gloves and substantial, fully enclosed footwear with good traction is recommended when using this mower.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop motor, and remove key before dismounting.
- Check brake operation before each use and frequently during use. Adjust and service as required.
- Keep hands and feet away from cutting area, which is located under the mower deck and inside the side discharge chute. Keep clear of the side discharge chute opening at all times. Do not reach under the mower deck.
- Operate the lawn mower only in daylight or good artificial light.
- Use safety glasses — Always wear eye protection with side shields marked to comply with ANSI Z87.1. Use face mask if operation is dusty.
- Use the right appliance — Do not use the lawn mower for any job except that for which it is intended.
- Do not force the lawn mower — It will do the job better and safer at the rate for which it was designed.
- Do not charge lawn mower in rain, or in wet locations.
- Stay alert — Watch what you are doing and use common sense when operating the lawn mower. Do not operate the mower while tired, upset, or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the lawn mower may result in serious personal injury.
- Maintain lawn mower with care — Keep machine in good working condition. Keep blades sharp and guards in place and in working order. To prevent serious personal injury, damage to the mower, and for best performance, replace damaged or unevenly worn blades.
- Check all nuts, bolts, and screws before each use for proper tightness to be sure the equipment is in safe working condition. Mower blades are sharp. Wrap the blades or wear gloves, and use extra caution when servicing them.
- Stop the motor, wait until blades come to a complete stop, and remove the start key before cleaning the lawn mower, removing the bagger, or removing the mulch cover.

IMPORTANT SAFETY INSTRUCTIONS

- Replace blade if it is bent or cracked. An unbalanced blade causes vibration that could damage the motor drive unit or cause personal injury. Sharpen a dull blade equally at each end to maintain the balance. Clean the blade thoroughly and check its balance by supporting it horizontally on a thin nail through its center hole. The nail should be in a horizontal position. If either end of the blade rotates downward, remove some metal from the heavy lower end until the blade is balanced. It is balanced when neither end drops.
- The side discharge chute is a spring-loaded guard that covers the side discharge opening on the mower deck and deflects grass clippings and debris away from the operator. Always ensure that the motor is off and the blades have stopped moving before inspecting, moving, cleaning, or performing maintenance on the side discharge chute.
- Always use safety protective devices. Do not operate the mower without the side discharge chute in place and working properly. Mulch cover should be correctly installed and working properly during mulching operation and bagger kit should be correctly installed and working properly during bagging operation.
- Never interfere with the intended function of a safety device or reduce the protection provided by a safety device. Check their proper operation regularly.
- Never tamper with safety devices. Check for proper operation regularly.
- Follow manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer. The use of other accessories may increase the risk of injury.
- Clear the work area before each use. Remove all objects such as rocks, sticks, metal, wire, bones, toys, fallen tree limbs, tree nuts, or other objects which can be thrown by the blade.
- Objects struck by the lawn mower blades can cause severe injuries to persons. The lawn should always be carefully examined and cleared of all objects prior to each mowing.
- If the lawn mower strikes a foreign object, follow these steps:
 - Stop the lawn mower, set the parking brake, wait until the blades come to a complete stop, and then remove start key.
 - Thoroughly inspect the mower for any damage.
 - Replace the blade if it is damaged in any way. Repair any damage before restarting and continuing to operate the mower.
- Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it. Never use on steep slopes greater than 15°.
 - Never attempt to ride on a steep slope or mow a slope that is greater than 15°. To determine the angle of your slope, use the **Slope Guide** at the back of this manual.
 - Mow up and down slopes, not across.
 - Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
 - Use a slow speed so you will not have to stop suddenly or accidentally accelerate while on a slope.
 - Do not mow on wet grass. Tires may lose traction and you may lose control.
 - Always keep the direction control switch in the forward position when going down slopes. Do not shift to neutral and coast downhill, which may cause you to lose control of the mower.
 - Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
 - Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.
 - Use extra care while operating machine with baggers or other attachments; they can affect the stability of the machine. Do not use on steep slopes greater than 15°.
 - Do not try to stabilize the machine by putting your foot on the ground.
 - Do not mow near drop offs, ditches, or embankments. The machine could suddenly roll over if a wheel goes over the edge or if the edge caves in and result in death or serious personal injury.
- Never direct discharged material toward anyone. Plan your mowing pattern to avoid discharge of material toward bystanders, roads, sidewalks, windows, cars, and the like. Also, avoid discharging material against a wall or obstruction, which may cause the material to ricochet back toward the operator.
- Stop the blade when crossing gravel surfaces to avoid discharging gravel and rocks and drive the mower slowly and carefully to avoid loss of control.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view.
- Never make any adjustments or repairs with the motor running and/or blades moving. Turn off power switch and remove key.
- Stop the motor, set the parking brake, wait until the blades come to a complete stop, and remove start key before unclogging the side discharge chute or opening. The cutting blades continue to rotate for a few seconds after the motor is shut off. Never place any part of the



IMPORTANT SAFETY INSTRUCTIONS

body in the blade area until you are sure the blades have stopped rotating.

- If the mower should start to vibrate abnormally, stop the motor and check immediately for the cause. Replace the blades if they are unevenly worn or damaged in any way. Vibration is generally a sign of a damaged mower blade.
- Disengage mower blades when not mowing.
- Service on the product and charger must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- Use only authorized replacement parts when servicing the product. Use identical replacement blades only. Use of unauthorized parts may create a risk of serious injury to the user or damage to the product.
- Maintain or replace safety instructions labels, as necessary.
- Remove start key — Remove start key from the mower before storing, servicing, or changing accessories such as blades. Such preventive safety measures reduce the risk of starting the mower accidentally.
- Stop the unit and remove the start key when not in use. Transport the unit with the motor stopped and the start key removed from the mower.
- Battery tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your battery tool or when changing accessories. Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- Do not use battery-operated mower in rain.
- Remove the start key before servicing, cleaning, or removing material from the gardening appliance.
- Store idle lawn mower indoors — When not in use, mower should be stored indoors in a dry, locked place out of the reach of children. The start key should also be removed and stored in a separate location out of the reach of children.
- Follow instructions for lubricating and changing accessories.
- Only allow responsible adults, who are familiar with and understand the instructions, to operate this machine.
- Never carry passengers.
- Never operate machine in a closed area.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Slow down before turning.
- Watch for traffic when operating near or crossing roadways.

- Use extra care when loading or unloading the machine into a trailer or truck and press the brake pedal as needed to control the speed. The mower will freely roll if it is moved on an inclined surface without pressing the brake pedal or setting the parking brake. When loading or unloading the mower, do not exceed the maximum recommended operation angle of 15°.
- Data indicates operators age 60 years and above are involved in a large percentage of riding mower related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves, or other debris build up. Allow machine to cool before storing.
- Do not spray with a garden hose to clean. Use an air moving device, such as a compressor or leaf blower to clean the mower.
- The bagger assembly (if equipped) is subject to deterioration and wear and should be checked each time the mower is used. If replacement is needed, make sure the new bagger meets original manufacturer's recommendations and specifications.

ADDITIONAL SAFETY RULES FOR BATTERIES

- Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Do not dispose of the batteries in a fire. The batteries could explode. Check with local codes for possible special disposal instructions.
- When batteries are not in use, keep 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 serious burns or a fire.
- Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
- Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Do not charge battery in an area of extreme heat or cold. Batteries will charge best at temperatures from 32°F to 104°F.

IMPORTANT SAFETY INSTRUCTIONS

- Only use RYOBI® Electric Riding Lawn Mower 75Ah (LPC12-75) or 100Ah (LPC12-100) lead acid batteries.

ADDITIONAL SAFETY RULES FOR TOWING

- Use common sense when towing. Too heavy of a load while on a slope is dangerous. Tires can lose traction with the ground and cause you to lose control of your mower.
- Follow manufacturer's recommendations for wheel weights or counterweights.
- Total towed weight must not exceed the weight that you can safely control with the mower.

- Do not attach towed equipment except at the approved hitch point.
- Never allow children or others in or on towed equipment.
- Stopping distance increases with speed and weight of load being towed. Travel slowly and allow extra time and distance to stop.
- Do not turn sharply when towing. Use additional caution when turning or operating under adverse surface conditions. Use care when reversing.

IMPORTANT SAFETY RULES FOR CHARGER

IMPORTANT SAFETY INSTRUCTIONS

1. **SAVE THESE INSTRUCTIONS - DANGER - TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS.**

This manual contains important safety and operating instructions for battery charger SC-48.

- 2. Before using battery charger,** read all instructions and cautionary markings on battery charger, battery, and product using battery.
- 3. CAUTION:** To reduce the risk of injury, charge only RYOBI® Electric Riding Lawn Mower 75-100Ah lead acid batteries. Other types of batteries may burst, causing personal injury or damage.

IMPORTANT SAFETY RULES FOR CHARGER

SAVE THESE INSTRUCTIONS



DANGER!

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, DEATH, OR SERIOUS PERSONAL INJURY, CAREFULLY FOLLOW THESE INSTRUCTIONS.

- **This manual contains important safety and operating instructions for the charger.** Refer to them frequently and use them to instruct others who may use this product. If you loan someone this product, loan them these instructions also to prevent misuse of the product and possible injury.
- **Before using the charger,** read and understand all instructions and cautionary markings in this manual, on battery charger, batteries, and 48V mower to prevent misuse of the products and possible injury or damage.
- **This charger is to be used only for charging this 48V mower.** Use with other products or batteries may cause personal injury as well as damage to the product or charger.
- **Lead acid batteries may generate explosive hydrogen gas during normal operation.** Keep sparks, flames, and smoking materials away from batteries.
- **The charger is not meant for use by children.**
- **Provide adequate ventilation for the charger to dissipate heat during charging.** The charger will get hot. Keep away from flammable and combustible material and do not cover the charger.
- **Risk of Burn Hazard** — Charger surfaces may be hot during operation. Use the charger handle only. Mount charger on a table or wall with the cooling fins vertical.
- **Risk of electric shock.** Do not touch uninsulated portion of output connector or uninsulated battery terminal.
- **Do not use charger outdoors or expose to wet or damp conditions.** Water entering charger will increase the risk of electric shock. The charger must be plugged into a Class A GFCI receptacle when used outdoors.
- **Keep charger and charger plug free of contamination and dirt. Do not let gasoline, oils, petroleum-based products, etc. come in contact with plastic parts.** They contain chemicals that can damage, weaken, or destroy plastic.
- **Keep cord and charger away from heat to prevent damage to housing or internal parts.**
- **Do not abuse cord or charger.** Never use the cord to carry the charger. Do not pull the charger cord rather than the plug when disconnecting from the charge port. Damage to the cord or charger could occur and create an electric shock hazard. Have damaged cords replaced by an authorized service center immediately.
- **Do not operate charger with a damaged cord or plug,** which could cause shorting and electric shock. If damaged, have the charger replaced by an authorized service person.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.** Take it to an authorized service person for electrical check to determine if the charger is in good working order.
- **Make sure cords are located so that they will not be stepped on, tripped over, come in contact with sharp edges or moving parts, or otherwise subjected to damage or stress.** This will reduce the risk of accidental falls, which could cause injury, and damage to the cords, which could result in electric shock.
- **An extension cord should not be used unless absolutely necessary.** Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
 - a. That pins on plug of extension cord are the same number, size, and shape as those of plug on charger.
 - b. That extension cord is properly wired and in good electrical condition; and
 - c. That wire size is large enough for AC ampere rating of charger as specified below:




Cord Length (Feet)	25'	50'	100'
Cord Size (AWG)	14	14	12

NOTE: AWG = American Wire Gauge











- **Do not disassemble charger.** Opening the charger will void its warranty. If charger requires service or repair during the warranty period, take it to an authorized service center to be replaced.
- **Service person must unplug charger from the AC wall outlet and from the mower charge port before attempting any maintenance or cleaning to reduce the risk of electric shock.**

SYMBOLS

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









SYMBOL	SIGNAL	MEANING
	DANGER:	Indicates a hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING:	Indicates a hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION:	Indicates a hazardous situation, that, if not avoided, may result in minor or moderate injury.
	NOTICE:	(Without Safety Alert Symbol) Indicates information considered important, but not related to a potential injury (e.g. messages relating to property damage).

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	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.
	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	Keep Children Away	Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Electric Shock	Failure to use in dry conditions and to observe safe practices can result in electric shock.
	Keep Hands and Feet Away	Keep hands and feet away from blade and cutting area.
	No Reach	Do not reach hands or feet under mower deck.
	No Slope	Do not operate on steep slopes or inclines greater than 15°. Mow up and down the face of slopes, never across.
	Keep Children and Bystanders Away	Keep all children, bystanders, and animals at least 100 ft. away.

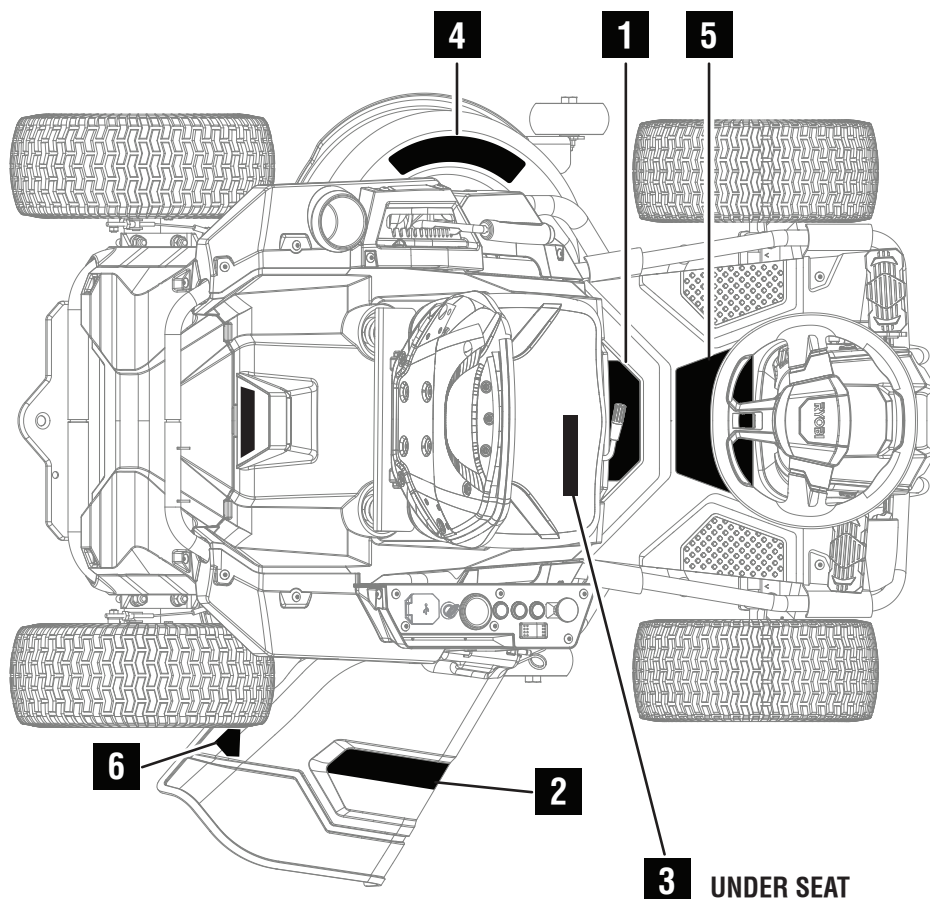
SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Ricochet	Thrown objects can ricochet and result in personal injury or property damage.
	Thrown Objects	Thrown objects can ricochet and result in personal injury or property damage. Never direct discharged material toward anyone.
	No Passengers	Never carry children or anyone, even when the blades are off.
	Back With Caution	Always look down and behind you before and during backing and make sure children, bystanders, and pets are clear of the area.
	Reverse Mode Option Button	Mower can be operated in reverse with blades engaged when RMO button is pushed and red button light is on. Always look down and behind you before and when maneuvering in reverse. Mowing in reverse is not recommended.
	Blade Engagement/Actuation Button	Lift the blade engagement button up to engage. Press the blade engagement button down to disengage.
	Recycle Symbol	This product uses lead acid (Pb) 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.
	Direct Current	Type or a characteristic of current
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
hrs	Hours	Time

SAFETY LABELS

The following labels are found on the product. For your safety, please review and understand all of the labels before starting the product. If any of the labels come off the unit or become hard to read, contact an authorized service center for replacement.



3 UNDER SEAT

1

⚠ WARNING

- Keep all safety devices, guards, shields, and switches in place and in working order.
- Know location and function of all controls.
- Before leaving operator's position, disengage blades, engage parking brake, shut off, and remove key.
- Keep hands and feet away from rotating parts.

Remove any objects from the mowing area that can be thrown by the blades.

Do not charge battery or expose mower to rain or damp locations.

Etiquetar a español provisto. Llame a 1-800-860-4050 para su sustitución.

BRAKE PEDAL

• Push pedal to ENGAGE BRAKE and DISENGAGE Drive Motor

PARKING BRAKE

• Push BRAKE "ON" (IP)

• Raise HANDLE

PARKING BRAKE OFF

• Press BRAKE pedal to DISENGAGE parking brake

Left Side of steering column

BLADE ENGAGEMENT / ACTUATION

ENGAGE

• LIFT the BLADE ENGAGEMENT button "UP" (large RED button)

DISENGAGE

• PRESS the BLADE ENGAGEMENT button "DOWN" (large RED button)

NOTE: Leaving seat or turning key to "OFF" will also reset the BLADE ENGAGEMENT button to "OFF." Must reset prior to use.

CRUISE CONTROL

CRUISE

ACTIVATE

• PRESS "CRUISE" button to activate continuous speed mode in forward

DEACTIVATE

• PRESS pedal forward or BRAKE pedal or PRESS "CRUISE" button again

3

RYOBI RY4811* Riding Lawn Mower
09974900* Tondeuse monter
Podadora de montar

48V --- 38 in. (508 mm)
Cutting Path / Chemin de coupe / Trayectoria de corte

For use only with SC-48 charger. For use only with LPC12-75 or LPC12-100 battery.
Utiliser seulement avec SC-48 chargeur. Utiliser seulement avec la batterie LPC12-75 ou LPC12-100.
Use sólo con SC-48 cargador. Para utilizar únicamente con la batería LPC12-75 o LPC12-100.

Techtronic Industries Power Equipment
1428 Pearman Dairy Rd. Anderson, SC 29625
Made in China / Fabriqué en Chine / Fabricado en China

1-800-860-4050
www.ryobitools.com

2

⚠ DANGER

Risk of injury. Keep hands and feet away from rotating blades. Make sure mower and blades are stopped before placing hands or feet near blades. Do not operate mower unless chute deflector or entire grass catcher is in its proper place. Do not put hands or feet under or into mower when motor is running. Before mowing, clear area of objects that may be thrown by the blade.

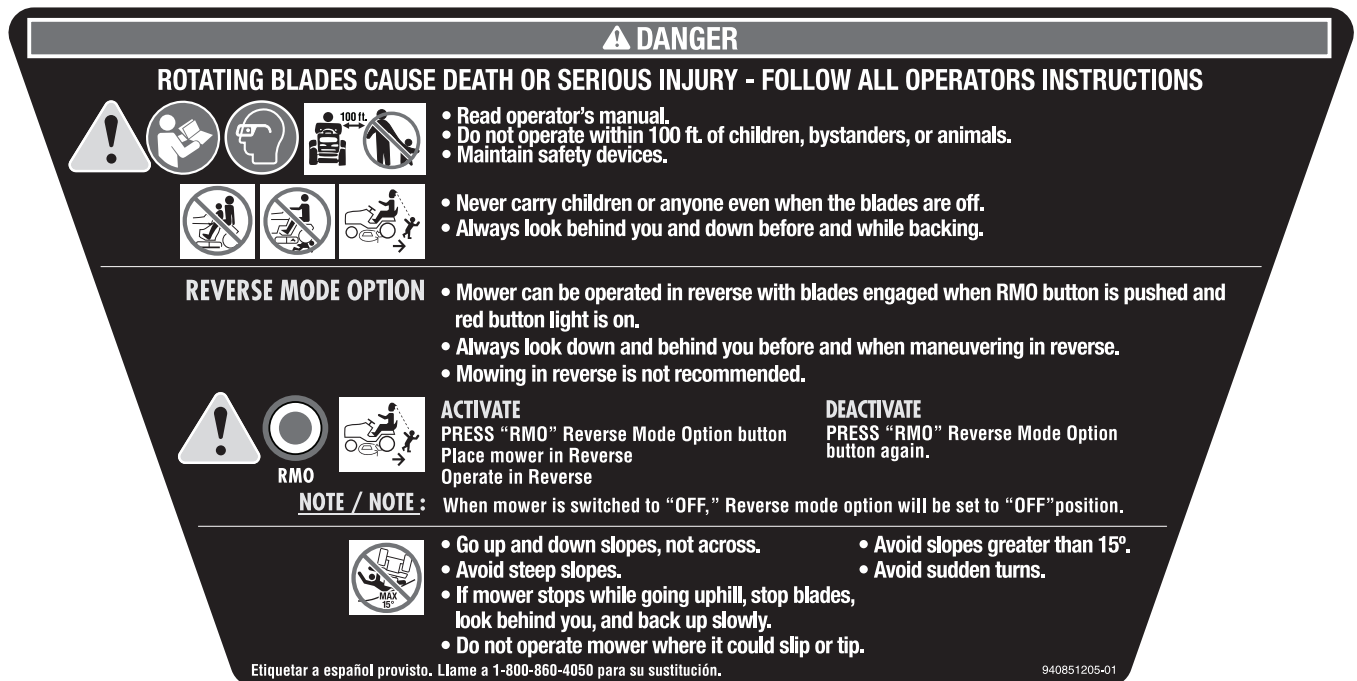
Etiquetar a español provisto. Llame a 1-800-860-4050 para su sustitución.

SAFETY LABELS

4



5



6



NOTE: Your mower labels may feature additional translations, or separate translated versions of the labels may be included. Translated labels can be installed over the labels currently on the mower. For best adhesion, always clean and dry mounting surface before installing.

FEATURES

PRODUCT SPECIFICATIONS

Hardware/Software Versions:

Deck Motor V1.2/GXDH0043
 Drive Motor KTF04H15_CV004_DRIVE (2016-10-03);
 KTF04H15_PV002 (2016-08-24) /
 RY48110_111_112_20161026_Ver1000
 Motor 48 Volt DC
 Height Adjustments 1-1/2 in. to 4-1/2 in.
 Wheel Size 15 in. front, 16 in. rear

Cut Size 38 in.
 Turning Radius approx. 16 in.
 Max. Speed: Forward 8 MPH
 Mow (blades engaged) 5 MPH
 Reverse 3 MPH
 Tire Pressure 20 PSI
 Charger Input 120 V, AC only, 60 Hz
 Charge Rate Overnight

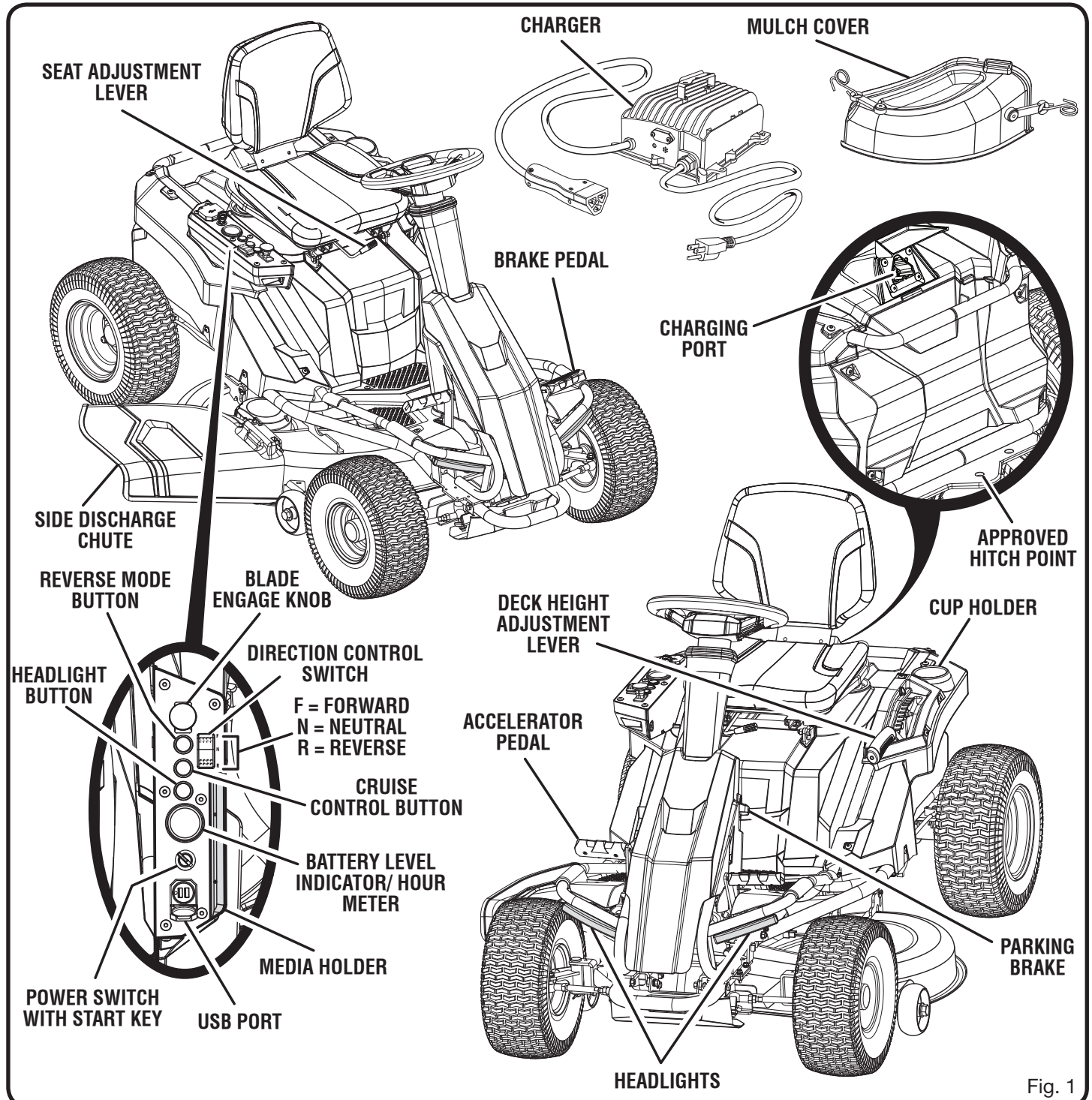


Fig. 1

FEATURES

KNOW YOUR LAWN MOWER

See Figure 1.

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

ACCELERATOR PEDAL

The accelerator pedal controls the speed of the mower.

BATTERY LEVEL INDICATOR/HOUR METER

The battery level indicator shows the amount of battery charge remaining. The hour meter tracks the total number of hours the mower has been used (key in on position) for maintenance purposes.

BLADE ENGAGE KNOB

Pull the blade engage knob up to activate the mower's cutting blades. Push the knob down to stop the cutting blades.

NOTE: For cutting in reverse, the reverse mode button must also be activated.

BRAKE PEDAL

The brake pedal is used for slowing down and stopping the mower.

CHARGER

The mower's charger has a key hole hanging feature for convenient, space saving storage. When hanging by the keyhole slots, use at least one additional screw in the hole in the mounting flange to secure in place. Always mount in such a way that the charger's LED status light is visible while charging.

CRUISE CONTROL BUTTON

The cruise control button allows you to continue forward at a set speed without needing to press the accelerator pedal.

DECK HEIGHT ADJUSTMENT LEVER

The deck height adjustment lever is used to raise or lower the cutting deck.

DIRECTION CONTROL SWITCH

The direction of movement of the mower is controlled using the direction control switch. Available settings are forward (F), neutral (N) and reverse (R).

HEADLIGHT BUTTON

Turn the headlights on and off using the headlight button.

MEDIA HOLDER

The media holder offers a convenient place to store your cell phone or MP3 player when charging with the USB port.

MULCH COVER

Your mower is equipped with a mulch cover that covers the side discharge opening, which allows the mower blade to cut and recut for finer clippings.

PARKING BRAKE

Use the parking brake to lock the mower in the braked position.

POWER SWITCH WITH START KEY

The power switch is used to turn the mower on and off. The start key must be inserted before the switch can be operated. When the key is in the accessory position, the power switch is also used to power optional manufacturer-approved mower accessories.

REVERSE MODE BUTTON

Press the reverse mode button to allow the mower to cut when maneuvering in the reverse direction. The blades will disengage if mower is operated in reverse without pressing the reverse mode button.

NOTE: The blade engage knob must also be pulled up for mowing to occur when maneuvering in reverse.

SEAT ADJUSTMENT LEVER

Use the seat adjustment lever to move the seat to the desired position.

USB PORT

The USB charging port provides charging power of 5 Volts DC at up to 2 amps for your cell phone, MP3 player, or other USB devices. Consult the owner's manual for your device for specific charging requirements.

Connect one end of a USB cable (not provided) to your device and the other end to the USB charging port on the mower, to begin charging your device.

NOTICE:

Attempting to charge devices rated more than 2 amps could damage the USB charging port and/or the mower.

NOTE: The USB port is only powered when the start key is in the ON position.



WARNING:

Never use headphones or any electronic device, such as a smart phone or tablet, while operating the mower. Distracted operation can result in an accident that could result in death or serious personal injury to the operator or a bystander.

OPERATION

WARNING:

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

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

WARNING:

Always turn off mower, make sure blades have stopped moving, and remove the start key from the mower when you are assembling parts, making adjustments, cleaning, or when not in use. This will prevent accidental starting that could cause serious personal injury.

WARNING:

Always inspect mower for missing or damaged parts and blades for damage or uneven or excessive wear prior to use. Use of the mower with damaged or missing parts can result in serious personal injury.

APPLICATIONS

You may use this product for the purpose listed below:

- Mowing your lawn

INSTALLING MULCH COVER

See Figure 2.

The mower is configured for side discharge when shipped. If mulching is desired:

- Lift the side discharge chute.
- Place the mulch cover on the tab on the mower housing.
- Connect the mulch cover latches to the two side mounting points on the mower deck housing.
- Release the side discharge chute.

WARNING:

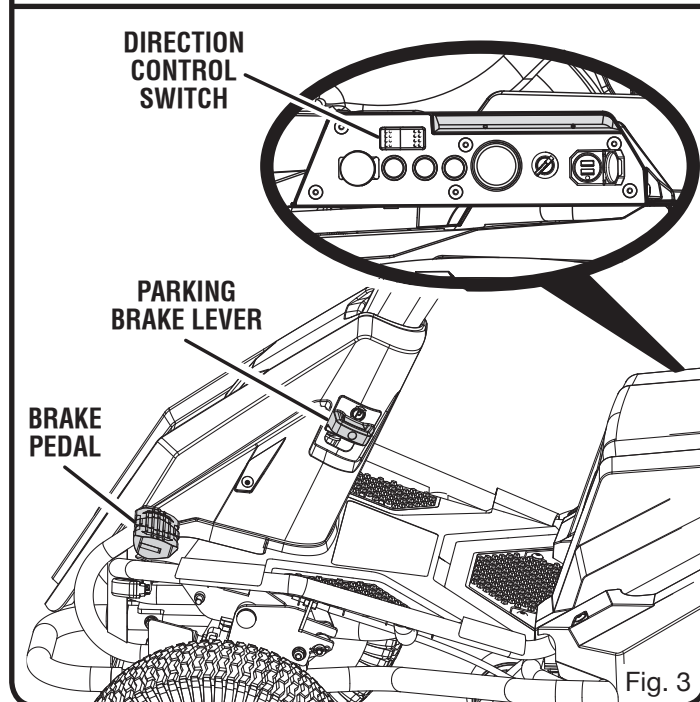
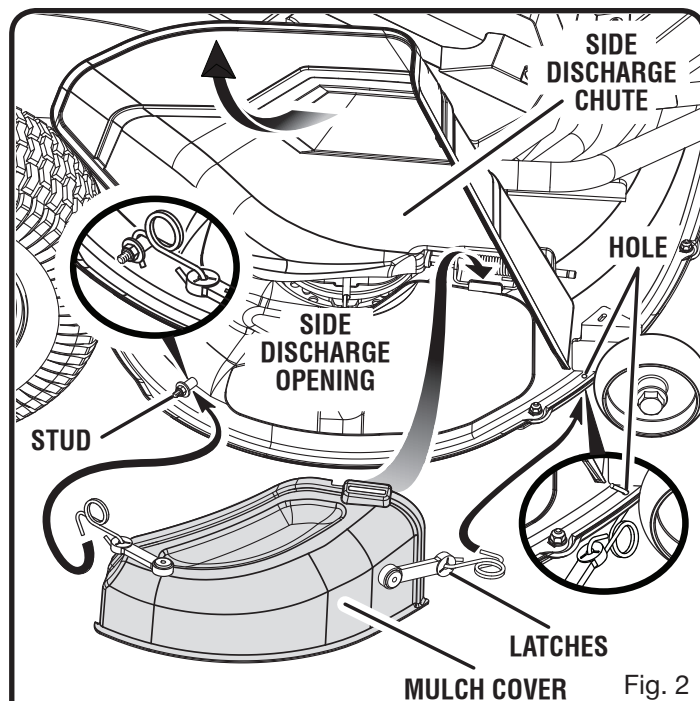
Make sure the side discharge chute fully closes when finished. Failure to do so could cause serious personal injury.

SETTING THE PARKING BRAKE

See Figure 3.

To set the parking brake:

- Place the direction control switch in the neutral (N) position.
- Fully depress and hold the brake pedal.



- Lift the parking brake lever all the way up and hold.
- Release the brake pedal.
- Release the parking brake lever.
- To release the parking brake: depress and release the brake pedal.

OPERATION

WARNING:

Never leave the mower unattended when the motor is running. Verify that the parking brake is set and the key has been removed. Failure to set the parking brake could cause the mower to move, and leaving the key could allow unauthorized use that could result in serious personal injury.

ADJUSTING THE SEAT

See Figure 4.

Adjust the seat position to ensure you are able to make firm contact with the accelerator and brake pedals before operating the mower.

To move the seat:

- Sit down on seat and lift the seat adjustment lever.
- While holding the lever, slide the seat to the desired position.
- Release the lever and make sure the seat is locked in position before operating the mower.

WARNING:

Be sure the seat is locked into place before operating the mower. A seat that is not secure can cause the operator to shift and lose control of the mower and result in possible death or serious personal injury.

SETTING THE CUTTING DECK HEIGHT

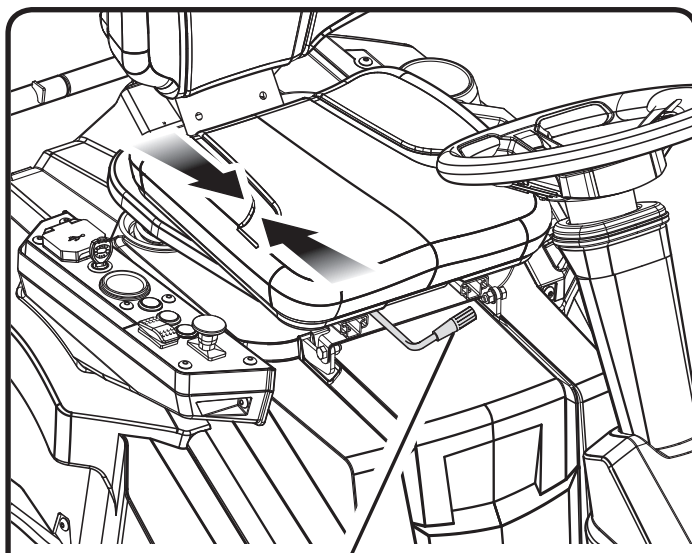
See Figure 5.

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

NOTE: To prevent scalping the lawn when encountering high spots, the cutting deck wheels should be positioned approximately 1/2 in. off the ground when the mower is at the desired cutting height. When shipped, the cutting deck wheels are set to the 1.5 in. position. Depending on your desired cutting height, you may need to change the position of the cutting deck wheels. To do so, refer to **Adjusting Cutting Deck Wheels** in the *Maintenance* section of this manual.

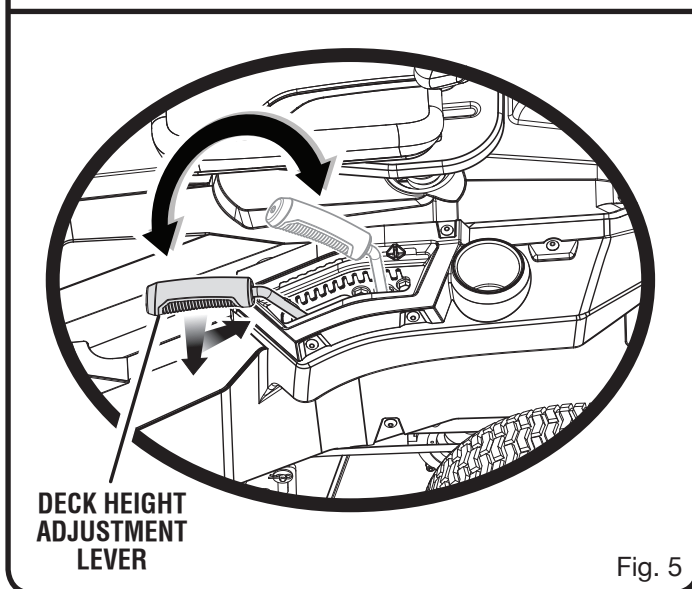
To adjust the cutting deck height:

- Stop the mower and disengage blades.
- Turn key to OFF position and set the parking brake.
- To raise the cutting deck, grasp the deck height adjustment lever, push left to disengage from slot, move toward the back of the mower, then push right into slot to secure.
- To lower the cutting deck, grasp the deck height adjustment lever, push left to disengage from slot, move toward the front of the mower, then push right into slot to secure.



SEAT ADJUSTMENT LEVER

Fig. 4



**DECK HEIGHT
ADJUSTMENT
LEVER**

Fig. 5

CAUTION:

Hold the deck height adjustment lever firmly when setting the deck height and only release when it is secure in the desired slot. Quickly letting go of the lever may create a pinching or pulling hazard to the operator's hand.

SETTING THE CRUISE CONTROL

See Figure 6.

Cruise control allows the mower to remain at a constant speed without the operator having to maintain pressure on the accelerator pedal. It should only be used in the forward position on relatively smooth, straight surfaces, and should never be used on slopes or rough terrain.

OPERATION

To set the cruise control:

- While driving the mower forward, press the accelerator pedal until the desired rate of speed is achieved.
- Press the cruise control button. The light around the button will illuminate to show cruise control is active.
- Release pressure on the accelerator pedal. Mower speed should remain constant.
- **To release cruise control:** tap on the accelerator pedal, depress the brake pedal, or press the cruise control button again. The light around the cruise control button will go out to indicate cruise control is no longer active.

CHARGING THE MOWER

See Figures 7 - 8.

Mower batteries must be charged overnight before first use. To verify mower batteries are fully charged, check the battery level indicator.

For best results:

- Do not charge in an area of extreme heat or cold.
- Never charge a frozen battery.
- Mount or place the charger in an area with adequate ventilation, ideally with the charger in a horizontal position with the cooling fins facing up.

To charge:

- Make sure both the charger and mower connections are clean and free of dirt or debris.
- Insert charger plug into charging port on mower, making sure it is properly connected.
- Connect charger to power supply using normal household current of 120 V, AC only, 60 Hz. The batteries should automatically begin to charge.

NOTE: The charger is equipped with a plug featuring a grounding pin and must be plugged into a matching standard three-prong outlet that has been properly installed and grounded in accordance with all local codes and ordinances. Do not use a two-prong outlet, adaptors, or modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

- When powered, the LED indicator on the charger will illuminate to indicate the charger's status. See the chart that follows to determine the meaning of the LED's display.
- When you are ready to mow, disconnect the charger from the power supply, then disconnect the charger from the mower.

NOTICE:

Always turn power switch to OFF position and remove key when charging mower and when mower is not in use.

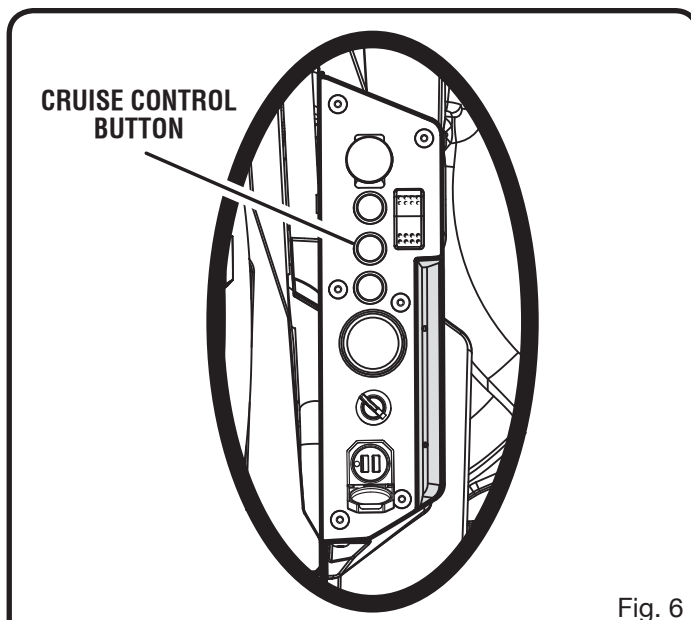


Fig. 6

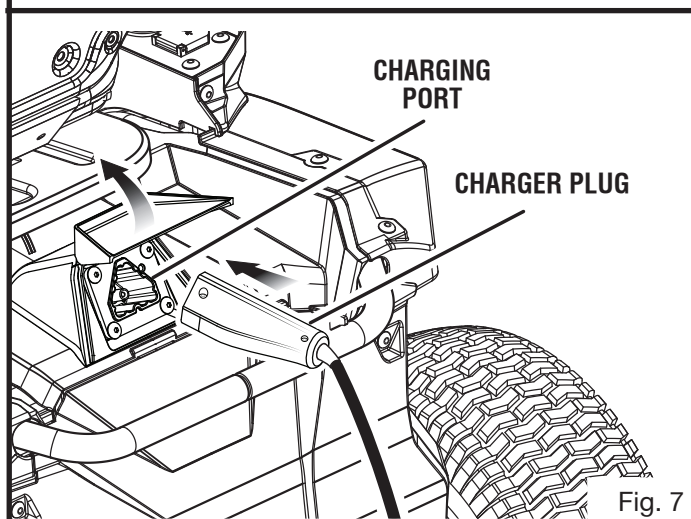


Fig. 7

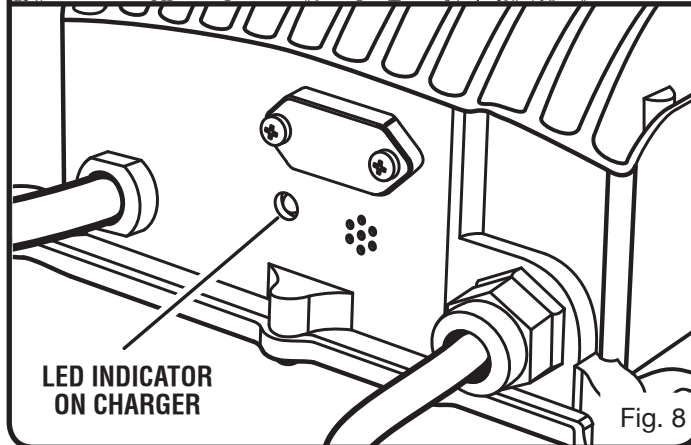


Fig. 8

OPERATION

LED INDICATOR	BATTERY/CHARGER STATUS
Short green flash	Batteries are less than 80% charged.
Long green flash	Batteries are more than 80% charged.
Solid green	Batteries are fully charged.
The following LED codes indicate an error condition of the charger. For details on how to clear the error, refer to the steps in the <i>Troubleshooting</i> section at the end of this manual.	
Red light turns on briefly then goes out	Check for valid AC voltage to charger.
One red flash	Charge Enable Fault
Two red flashes	Battery Voltage Fault
Three red flashes	Battery Charge Timeout: Charge Time Exceeded
Four red flashes	Battery Fault: Charge Time Exceeded
Five red flashes	Temperature Delay
Six red flashes	Charger Fault

NOTICE:

Always connect the mower to the charger when the unit is not in use. If it is not possible to leave the mower charger connected, make sure to charge the batteries fully at least once a month.

SAFETY INTERLOCK SYSTEM

See Figure 9.

This mower features a Safety Interlock System to protect the operator by shutting off the blades if the operator leaves the seat with the blades running. Test the system before each use to be sure it is working correctly.

To test:

- Make sure direction control switch is in neutral (N) position and blade engage knob is down.
- Install start key and turn to ON position.
- Raise blade engage knob to activate blades.
- Briefly lift off the seat, but do not get off the mower.

The blades should shut off within 5 seconds. If they don't, contact customer service. Do not operate the mower until the safety interlock system has been repaired.

OPERATING THE MOWER

See Figures 9 - 11.



WARNING:

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.

Before starting the mower:

- Ensure work area is clear of children, bystanders, and pets.

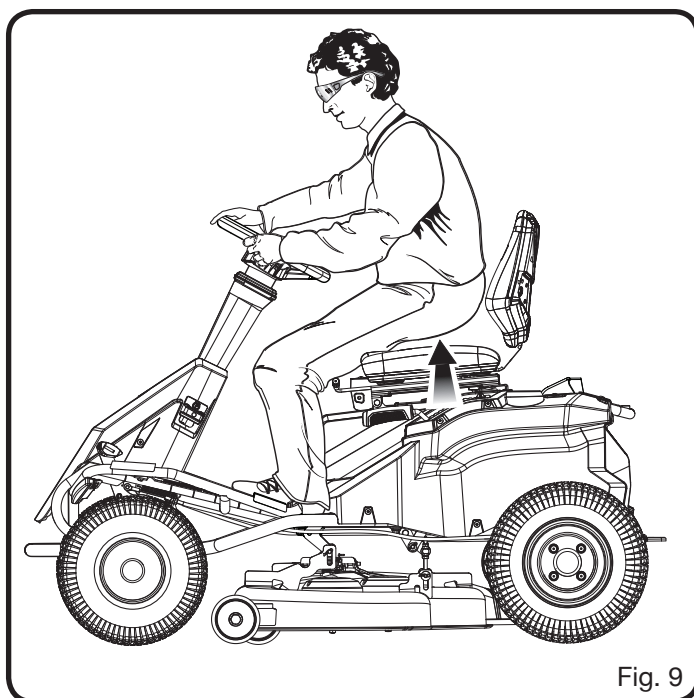


Fig. 9

- Clear the work area of objects that may be thrown by the mower blades.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.
- Check to make sure all guards are in place and working properly.
- Clean debris from mower.
- Test safety interlock system.
- Adjust seat to desired position.
- Verify battery charge level.

OPERATION

NOTICE:

When the level of battery charge reaches the red zone on the battery charge indicator, the blades will automatically shut off. Return immediately to recharge. Continuing to mow when the battery charge level is in the red zone can cause the mower to become stranded away from the charging area.

NOTE: If the mower becomes stranded away from the charger, it will be necessary to place the direction control switch in neutral (N) and push the mower back to the charging location.

Mowing:

- Raise the mower deck to its highest position.
- Insert start key and turn to ON position.
- Release the parking brake.
- Place direction control switch in forward (F) position and drive to desired mowing location.

! WARNING:

Be certain you have correctly set your intended direction of travel with the direction control switch before pressing the accelerator pedal. Failure to do so could result in you driving the mower in an unintended direction, which could cause loss of control or an accident resulting in death, serious personal injury, or property damage.

- Stop the mower, turn key to OFF position, and set the parking brake.
- Lower cutting deck to desired position.
- Turn start key to ON position and release parking brake.
- Raise blade engage knob to activate blades and press accelerator pedal to mow as desired.

! WARNING:

Use caution when crossing over gravel paths or drive-ways. 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.

NOTICE:

Do not attempt to change the direction of operation while the mower is in motion. Always come to a complete stop before changing the mower direction.

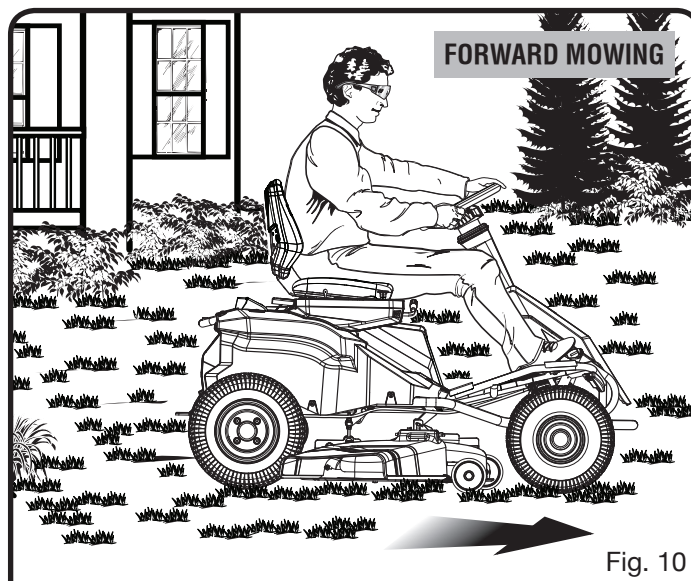


Fig. 10

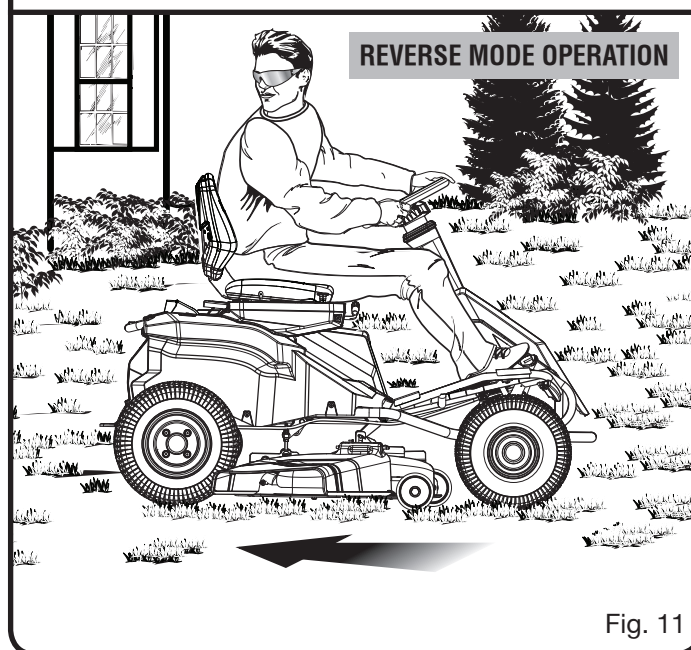


Fig. 11

Reverse mode operation:

NOTICE:

The mower will emit a constant beeping sound when operated in reverse with either the blade off or in reverse mode operation.

- Depress the brake pedal and bring the mower to a complete stop.
- Push blade engage knob down to turn blades off.
- Place direction control switch in reverse (R) position.
- Press the reverse mode button.
- Raise the blade engage knob, slowly press accelerator pedal, and reverse mow as needed.

OPERATION

WARNING:

Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing to make sure no children, bystanders, or pets enter the mowing area. Be aware that the reverse mode operation is activated when the reverse mode button is illuminated in red and a constant beeping sound is emitted. Remember that a careless fraction of a second is sufficient to inflict death or serious injury.

WARNING:

Be especially careful before and when backing with the bagger kit 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 back over accidents that can cause death or serious personal injury.

When mowing is complete:

- Stop mower on a flat, level surface. Do not stop the mower on a slope.
- Push the blade engage knob down to turn blades off.
- Place the direction control switch in the neutral (N).
- Set the parking brake.
- Turn the start key OFF.

WARNING:

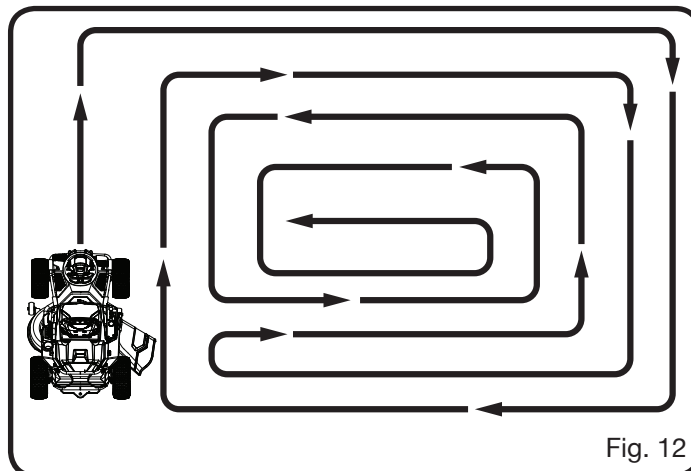
If the mower emits a beeping noise after you leave the seat, verify that the parking brake is set and the key has been removed. Failure to set the parking brake could cause the mower to move, and leaving the key could allow unauthorized use that could result in serious personal injury.

NOTE: Reverse mode operation resets each time the power switch is turned to the OFF position.

MOWING TIPS

See Figure 12.

- Keep mower blades sharp.
- Make sure the lawn is clear of stones, sticks, wires, toys, tree nuts, tree branches, and other objects that could damage the lawn mower blades or motor. Do not mow over property stakes or other metal posts. Such objects could damage the blade or be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- For a healthy lawn, always cut off one-third or less of the total length of the grass.



- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction, making left hand turns until finished.
 - Mow so that discharged clippings exit in the direction of the lawn area that has already been cut.
 - When cutting heavy grass, reduce speed to allow for more effective cutting and a proper discharge of the clippings.
 - Do not cut wet grass. It will stick to the underside of the deck and prevent proper bagging or mulching of grass clippings.
 - New or thick grass may require a narrower cut or a higher cutting height.
 - Keep the mower deck and side discharge chute clean. Remove grass clippings, leaves, dirt, and any other accumulated debris before and after each use. Do not spray with a garden hose to clean.
- NOTE:** Always stop mower, allow blades to completely stop, and remove the start key before cleaning underneath the mower.

SLOPE OPERATION

See Figure 13.

WARNING:

Slopes are a major factor related to tip-over and roll-over accidents that can result in severe injury or death. Operation on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. For your safety, do not attempt to mow steep slopes greater than 15 degrees. Make a copy or cut out the slope guide image on page 36 and use to determine if your slope is too steep for safe operation.

- Mow up and down, not across the face of slopes.
- Do not mow on wet grass. Wet grass can cause the tires to lose traction or slip on slopes, even though the brakes are functioning properly.

OPERATION

- Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles. Remove all objects such as rocks, tree limbs, etc., which could be tripped over or thrown by the blade.
- Do not mow near drop-offs, ditches, or embankments.
- Drive slowly and do not make sudden changes in speed or direction.
- Avoid stopping on slope if at all possible. If stopping is unavoidable, make sure to engage parking brake. When restarting, use lowest possible speed. If turning is necessary, exercise extreme caution when changing direction and always turn downhill.
- Never attempt to stabilize the mower on a slope by placing your foot on the ground during operation.
- If using the optional bagger kit, use extreme caution and operate the mower slowly when operating on slopes, as the bagging kit can change the stability of the mower.
- Always use the brakes when travelling down the slope. Do not attempt to let the mower coast downhill in neutral.
- If at any point the tires lose traction while operating on a slope, disengage the blades and proceed slowly and carefully straight down the slope.

TRANSPORTING THE MOWER

See Figure 14.

WARNING:

Use care when driving the mower off of or onto a trailer or truck and press the brake pedal as needed to control the speed. The mower will freely roll if it is moved on an inclined surface without pressing the brake pedal or setting the parking brake. Failure to follow these instructions can result in loss of control and result in death, serious personal injury, or property damage.

WARNING:

Use care when loading or unloading the mower onto a trailer. Ensure the cutting deck is raised to the highest position so that it is not caught on the ramp. The wheels on the mower can go off the ramp or trailer, causing the mower to pivot or tip over, and result in a crush hazard that can cause death or serious personal injury.

- Park the mower on a level surface.
- Raise the cutting deck to the highest position.
- Position and secure ramp to the trailer according to manufacturer's instructions.

NOTE: We recommend you use one full width loading ramp that is at least 1 ft. wider than the mower to minimize the risk of the mower's wheels going off the side of the ramp.

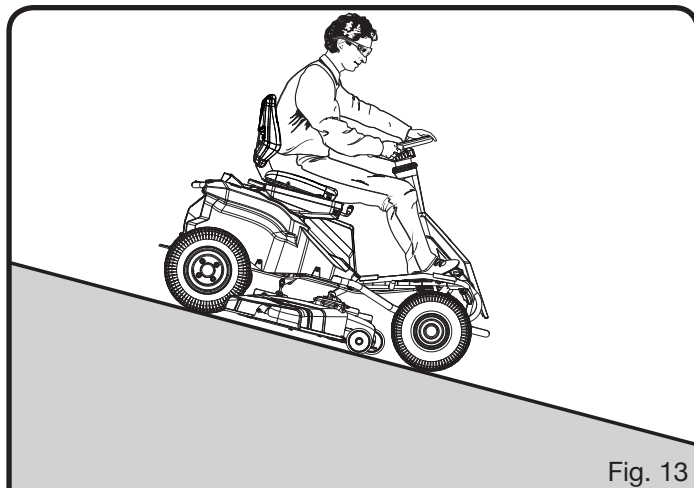


Fig. 13

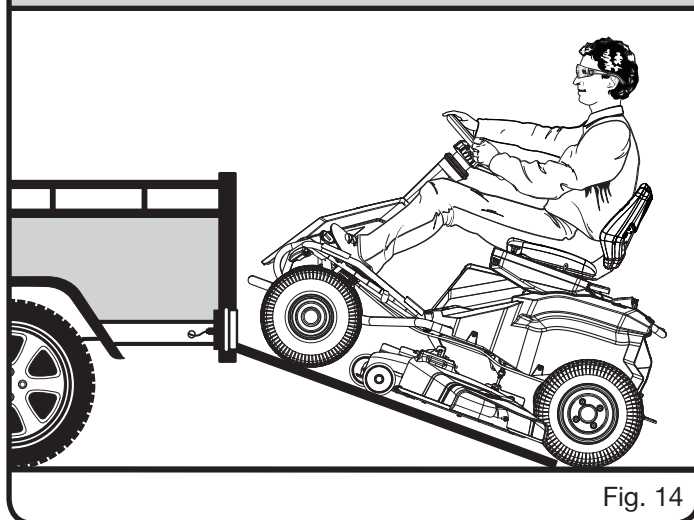


Fig. 14

- Slowly drive the mower onto the ramp and into the trailer.
- Lower mower deck completely.
- Set the parking brake.
- Turn off mower and remove key.
- 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 set the parking brake when transporting the mower.

MAINTENANCE

WARNING:

Before performing any maintenance, stop the mower, wait for the blades to come to a complete stop, and remove the start key to avoid accidental starting and possible serious personal injury.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

WARNING:

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

WARNING:

Strictly adhere to all torque wrench tightening specifications. Failure to do so could cause serious personal injury.

NOTICE:

Before each use, inspect the entire product for damaged, missing, or loose parts such as screws, nuts, bolts, caps, etc. Tighten securely all fasteners and caps and do not operate this product until all missing or damaged parts are replaced. Please contact customer service or an authorized service center for assistance.

GENERAL MAINTENANCE

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

WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken, or destroy plastic which can result in serious personal injury.

Remove any build-up of grass and leaves on or around the motor cover. Wipe the mower clean with a dry cloth occasionally. Do not use water.

ADJUSTING CUTTING DECK WHEELS

See Figure 15.

The cutting deck wheels should be positioned approximately 1/2 in. off the ground when the mower is at the desired cutting height. This will minimize the chance of scalping the lawn in most situations. When shipped, the wheels are positioned in Position A.

To adjust the cutting deck wheels:

- Park the mower on a level surface and set the parking brake.
- Stop the motor and remove the start key. Allow blades to come to a complete stop.
- Raise the cutting deck to the desired height setting.
- Remove nut and bolt holding cutting deck wheel in place.
- Move wheel to desired position. Available hole positions are 1.5 in. (A), 1.75 in. (B), 2 in. (C) and 2.25 in. (D).
- Replace bolt and nut; tighten securely. Torque nut to 4-6 ft. lbs.
- Repeat with remaining cutting deck wheel, making sure both wheels are installed in the same position.

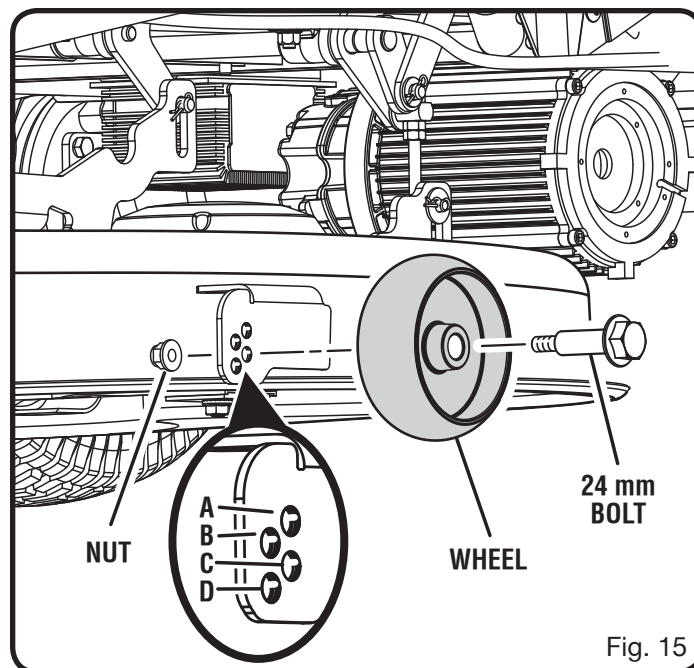


Fig. 15

MAINTENANCE

REMOVING THE CUTTING DECK

See Figure 16.

If desired, the cutting deck can be removed from the mower to make accessing the blades easier when changing.

- Make sure direction control switch is in neutral (N) position and blade engage knob is down.
- Stop the motor, remove the start key, and set the parking brake.
- Disconnect the cables that connect the cutting deck to the mower.
- Lower the cutting deck to its lowest position.
- Remove the 4 hitch pins and washers that secure the cutting deck in place.
- Slide the deck out from under the mower.
- Reverse the process to reattach the cutting deck to the mower.

REPLACING CUTTING BLADES

See Figures 17 - 19.

CAUTION:

Only use replacement blades and blade bolts authorized by the manufacturer of your riding mower. Use of blades and blade bolts not authorized is hazardous and may damage your riding mower.

- Make sure direction control switch is in neutral (N) position and blade engage knob is down.
- Stop the motor, remove the start key, and set the parking brake.
- Raise the height of the cutting deck to its highest position to allow access to blades.

NOTE: If necessary, raise the mower by placing on a lift or using a jack and jack stands, or remove the cutting deck as described in the previous section to gain access to the blades.

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 possible serious personal injury.

- Wedge a block of wood between the blade and mower deck to prevent the blade from turning.

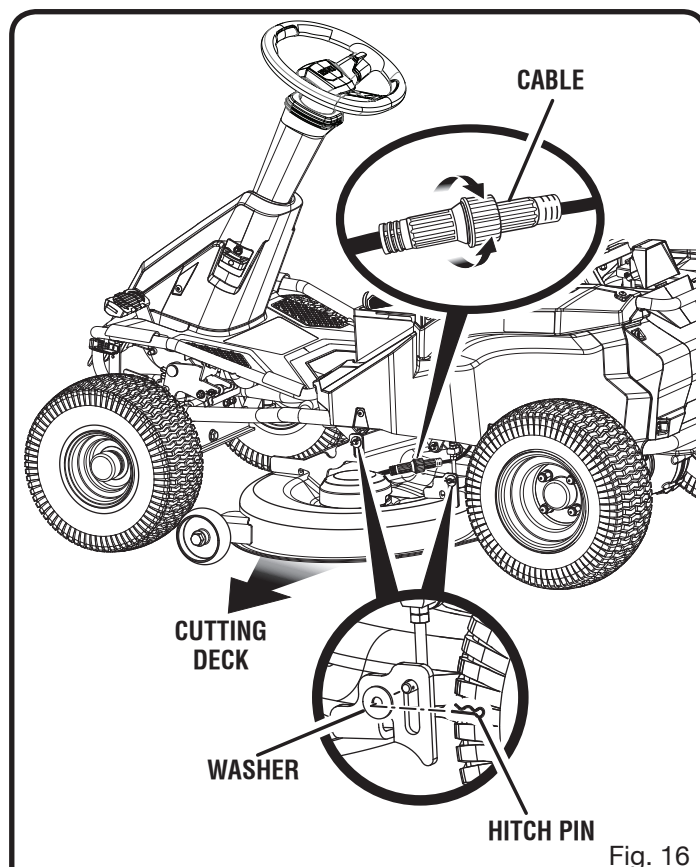


Fig. 16

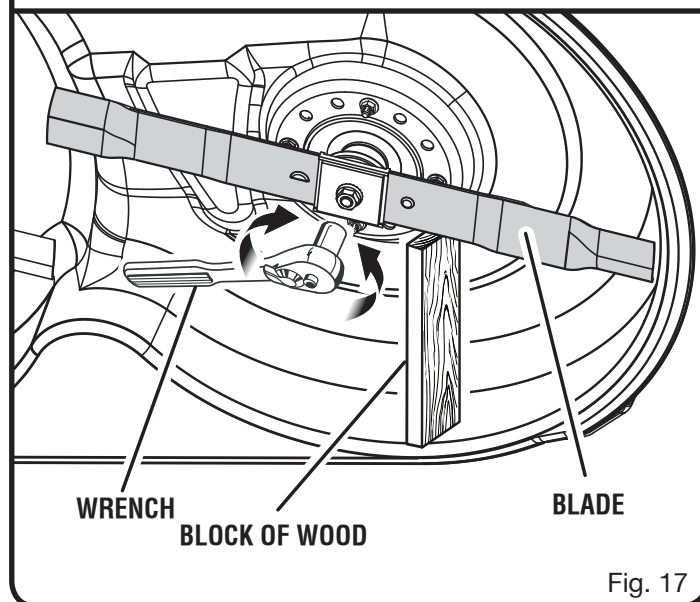


Fig. 17

MAINTENANCE

- Loosen the blade nut by turning it counterclockwise (as viewed from bottom of mower) using a 15 mm wrench or socket (not provided).
 - Remove the blade nut, spacer, blade insulator, and blade.
 - Place the new blade on the shaft against the corresponding blade posts. Ensure blade is properly seated with shaft going through center blade hole and the two blade posts inserted into their respective holes on the blade. Make sure it is installed with the curved ends pointing up toward the mower deck and not down toward the ground. When seated properly, the blade should be flat against the blade posts.
 - Replace the blade insulator and spacer, making sure the flat sides on each piece align and the straight sides of the opening on the spacer are aligned with the straight sides of the blade shaft.
- NOTE:** Make certain all parts are replaced in the exact order in which they were removed.
- Thread the blade nut on the shaft and finger tighten.
 - Torque the blade nut down clockwise using a torque wrench (not provided) to ensure the bolt is properly tightened. The recommended torque for the blade nut is 600-650 in. lbs.



WARNING:

Ensure blade is properly seated and the blade nut is tightened to the torque specifications above. Failure to properly attach the blade could cause it to come loose and result in possible serious personal injury.

- Repeat with second blade, if needed.

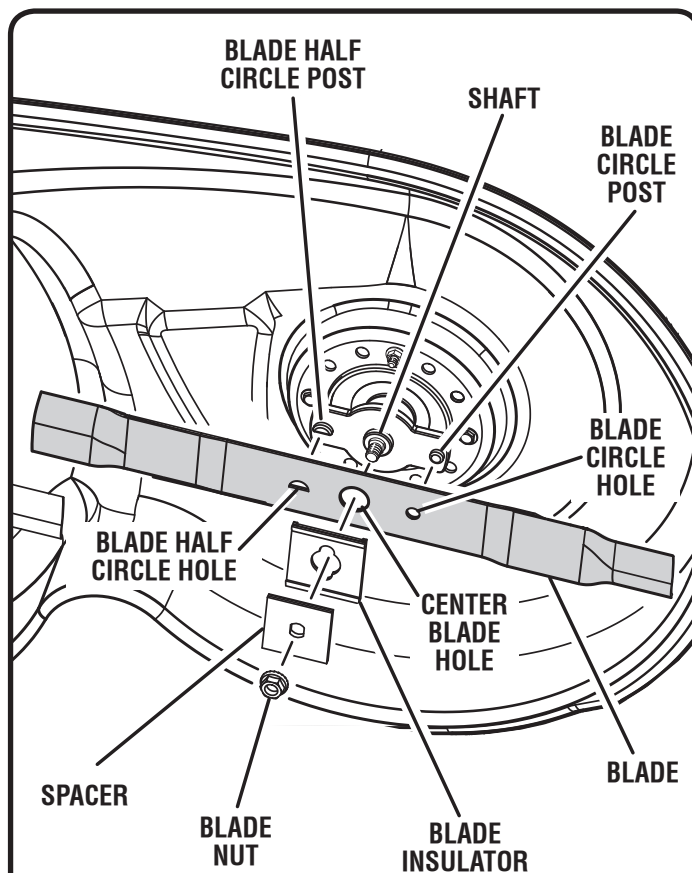


Fig. 18

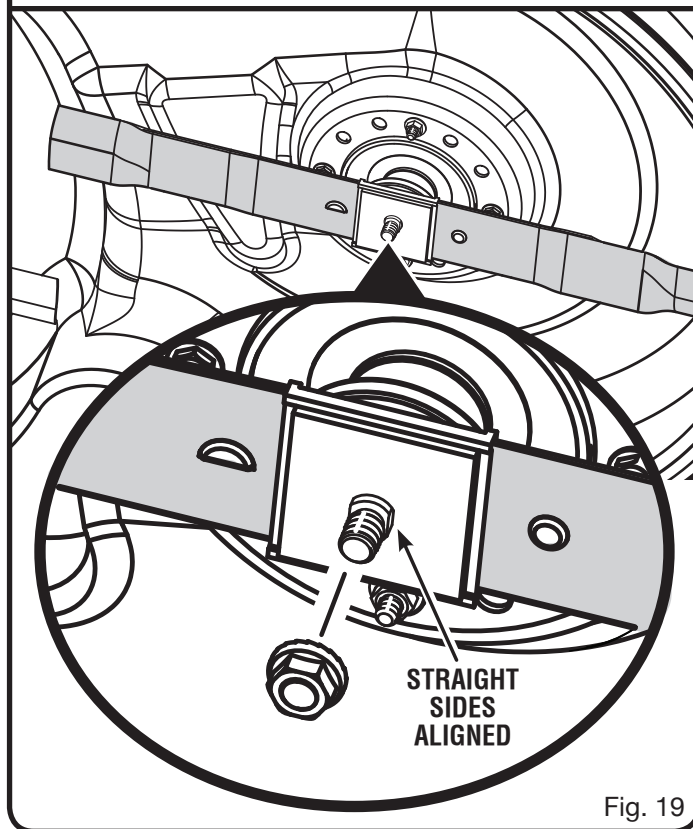


Fig. 19

MAINTENANCE

TIRE MAINTENANCE

This mower is equipped with tubeless tires of the size and type listed below:

	Front	Rear
Size	15x6x6	16x6.5x8

Tire Air Pressure

Check the air pressure in all tires before use. Improper air pressure will affect handling, steering response, traction, tire life, level cutting, and operator comfort. Be sure tires are inflated to the pressure shown below.

NOTE: Tire pressure should only be measured or adjusted when tires are cold.

Recommended Pressure
20 psi (137.9 kpa)



WARNING:

Check the tire pressure carefully while inflating. Too much air in the tire could cause the tire to burst, causing serious personal injury.



WARNING:

Maintaining correct air pressure in the tires is very important. Too little pressure could allow the tire to rotate off the wheel rim. Too much pressure could cause the tire to burst. Failure to maintain correct air pressure in the tires could cause problems with mower operation and stability, causing serious personal injury.

TIRE REPAIR

If a leak or flat tire occurs due to a puncture, the tire may be repaired using a plug-type patch. If the damage is from a cut, or if the puncture cannot be repaired using a plug, the tire should be replaced.

REPLACING TIRES

When tires are worn, the traction of the mower will be decreased, which increases the chance of having an accident. Tires should be replaced when the depth on the tread is 0.16 in. (4 mm) or less, or any time there is damage to the tire. Always use identical replacement tires. Using improper tires on the mower could cause loss of control, which could cause serious personal injury.

Have tires replaced by an authorized service center or a qualified tire repair station.

ADJUSTING THE BRAKES

See Figure 20.

Being able to stop the mower properly is critical to mowing safety. If you've noticed your mower traveling farther before stopping when you depress the brake pedal, the brakes may need adjusting.

To test:

- Park the mower on a level surface and set the parking brake.
- Place the direction control switch in neutral (N).
- Stand behind the mower and try to push it forward. If the rear tires turn, the brakes need to be tightened.

To tighten:

- Locate the brake adjustment nuts on the interior side of each of the rear wheels.
- Turn each adjustment nut 1/4 turn clockwise, then try again to push the mower.
- Continue rotating each nut 1/4 turn and testing until the mower can no longer be moved by pushing.

After final adjustment, test the brakes by driving the mower at normal speed on flat ground to be sure the mower stops quickly when the brake pedal is depressed.

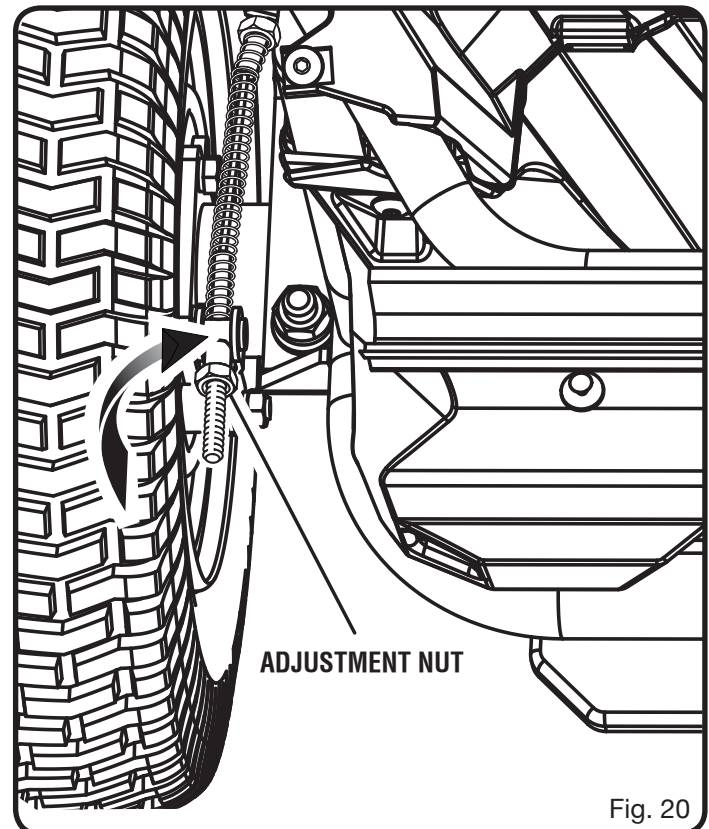


Fig. 20

MAINTENANCE

HEADLIGHT REPLACEMENT

See Figure 21.

Call customer service or visit our website online to order a new headlight.

- Park the mower on a level surface and set the parking brake.
- Stop the motor and remove the start key.
- Remove and set aside the hex head screw and flat washer holding the mower floor panel in place.
- Lift floor panel slightly to access the two hex head screws and flat washers securing the headlight in place. Remove screws and washers and set aside.
- Unplug the old headlight and discard.
- Plug in new headlight and reinstall washers and screws. Tighten securely.
- Lower floor panel and reinstall washer and screw to secure.

LEVELING THE CUTTING DECK

See Figures 22 - 23.

If your lawn appears unevenly cut after using the mower, the cutting deck may need adjusting. Before deciding that leveling the cutting deck is necessary, make sure tires are properly inflated to the recommended PSI when mowing. Over- or under-inflated tires can affect the appearance of the cut, and proper inflation of the tires may be all that is needed to resolve uneven cutting issues.

NOTE: Always check side-to-side alignment and adjust as needed before measuring and adjusting front to back.

Before beginning:

- Make sure direction control switch is in neutral (N) position and blade engage knob is down.
- Stop the motor, remove the start key, and set the parking brake.
- Raise the height of the cutting deck to its highest position.

To make side-to-side adjustment:

- Position the blades so that the ends point toward the sides of the mower.
- On the outside edge of each blade, measure the distance from the bottom edge of the side of the blade to the ground. If the distance between the two sides is greater than 1/8 in., a side-to-side adjustment is necessary.
- On the side you wish to adjust, loosen the jam nuts as shown.
- Turn the adjustment nuts clockwise to raise or counter-clockwise to lower the side of the cutting deck. Each full turn of the adjustment nut will change the deck height approximately 3/16 in.

NOTE: If raising the side, you will need to turn the top adjustment nut first. If lowering, turn the bottom nut first.

- Measure again. Continue to adjust and measure until the difference between the distance on each side is 1/8 in. or less.
- Proceed to front-to-back adjustment or retighten jam nuts to secure.

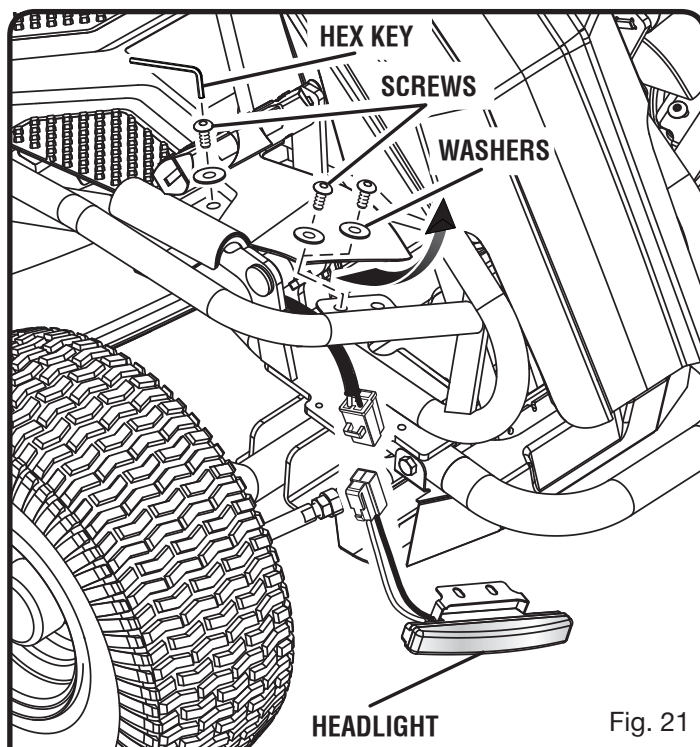


Fig. 21

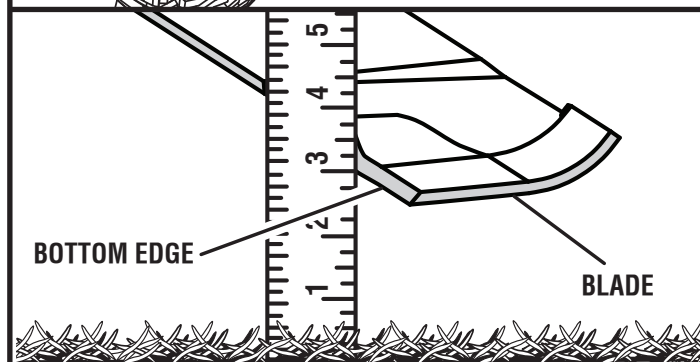


Fig. 22

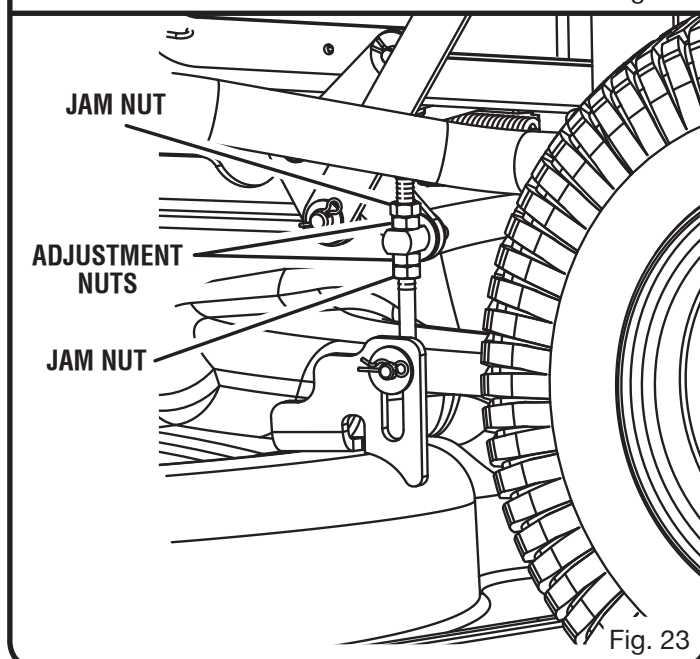


Fig. 23

MAINTENANCE

To make front-to-back adjustment:

NOTE: Always level the deck side to side before making a front to back adjustment.

- Position the blade nearest the side discharge chute so that the ends now point toward the front and back of the mower.
- Measure the distance from the tip of the blade to the ground. For best results, the front tip of the blade should be from 1/8 in. to 3/8 in. lower than the rear tip.
- If front-to-back adjustment is needed, turn the adjustment nuts clockwise to raise or counterclockwise to lower the back of the cutting deck. Each full turn of the adjustment nut will change the deck height approximately 1/8 in.

NOTE: Make sure to turn the adjustment nuts on both sides equally to prevent throwing the side-to-side measurement off again.

- Measure again to verify the front tip is now 1/8 in. to 3/8 in. lower than the rear tip. If not, continue to adjust and measure until they are.
- Without moving the adjustment nuts, retighten the jam nuts to secure the adjustment nuts in place.

REPLACING THE BATTERIES

See Figure 24 - 27.

NOTE: Only use RYOBI® Electric Riding Lawn Mower 75Ah (LPC12-75) or 100Ah (LPC12-100) lead acid batteries.

This mower operates on four 12 volt batteries connected in a series. If replacing one or more of the batteries, always replace using a battery of the same type with equal voltage and capacity.



WARNING:

Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.

Do not dispose of the batteries in a fire. The batteries could explode. Check with local codes for possible special disposal instructions.

When batteries are not in use, keep 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.

Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may over-heat and cause serious burns.

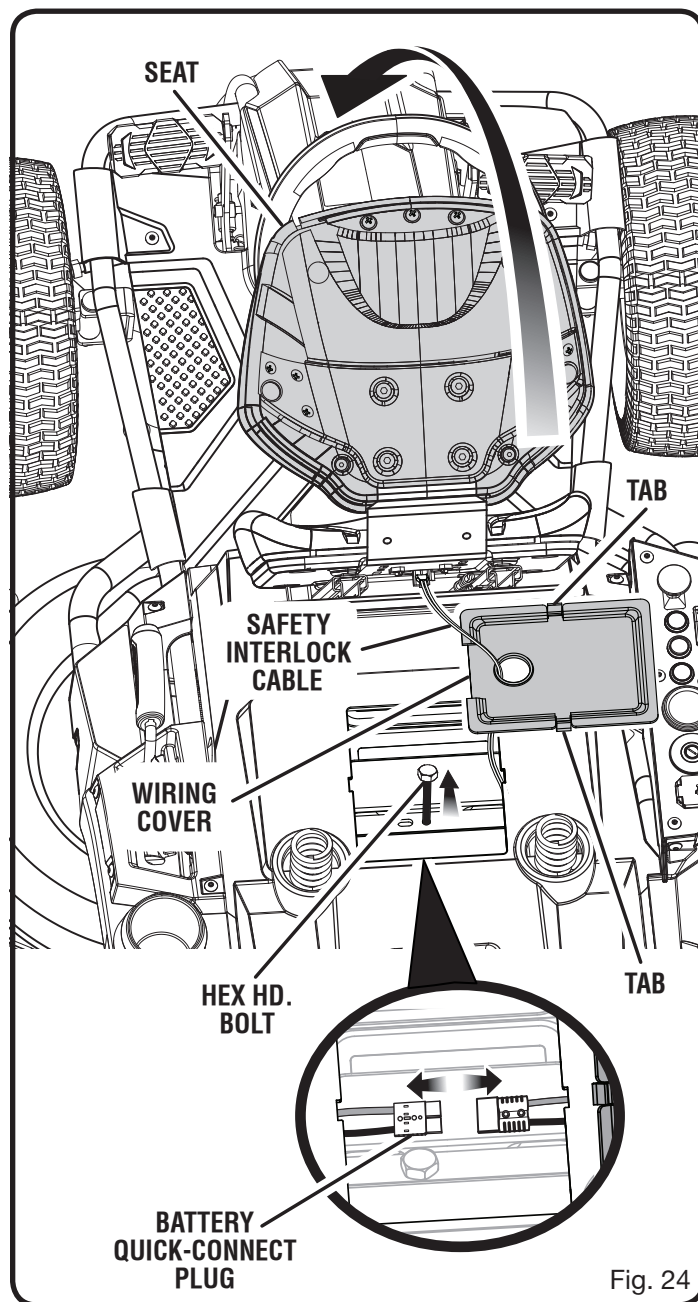


Fig. 24

MAINTENANCE

NOTICE:

Use only identical lead acid batteries when replacing. Never mix different makes and sizes of batteries in the series. Doing so will eventually cause damage to the batteries and may also damage the mower.

- Park the mower on a level surface and set the parking brake.
- Stop the motor, remove the start key, and set the parking brake.
- Raise the mower seat.
- Press the tabs on the wiring cover. Lift the cover and rotate to one side to gain access to the compartment below.
- Remove and set aside the hex head bolt that secures the battery tray in place.
- Disconnect the battery quick-connect plug. This plug connects the batteries to the mower.
- Remove the four screws that secure the battery compartment cover in place.
- Remove the two flange nuts and flange bolts that secure the front of the battery tray in place.
- Fully extend the battery tray, resting the end outside the mower on a stable surface that will support a minimum 300 lb. weight.

! WARNING:

The battery tray is very heavy and may require two people to extend. We recommend the use of a hydraulic table-type cart (or similar device) to extend the tray. Failure to properly extend and support the battery tray could result in serious personal injury, as well as damage to the mower.

! WARNING:

Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.

- Lift the battery securing bracket off the batteries and set aside.
- Remove and set aside the battery covers for the battery or batteries being replaced.
- Disconnect the battery or batteries you wish to replace. Disconnect the negative (black) cable first, then the positive (red) cable, being careful not to short across the terminals.

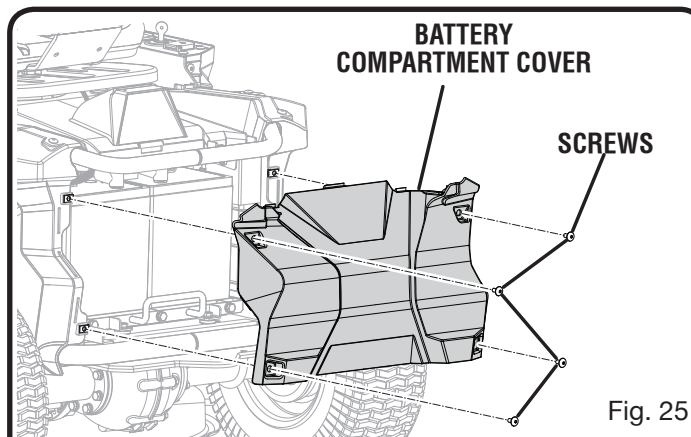


Fig. 25

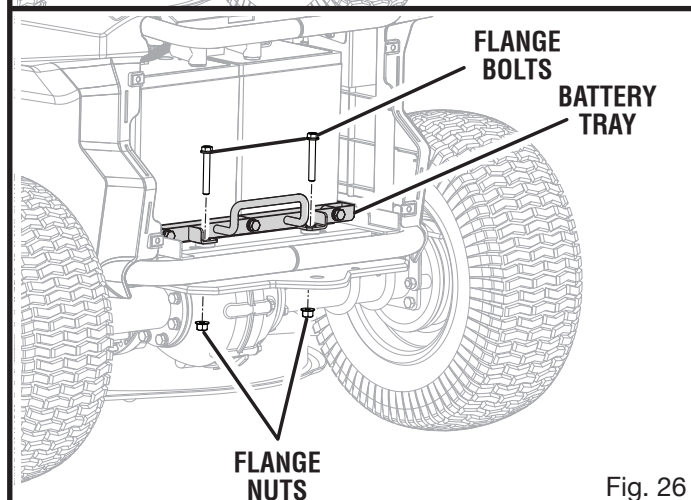


Fig. 26

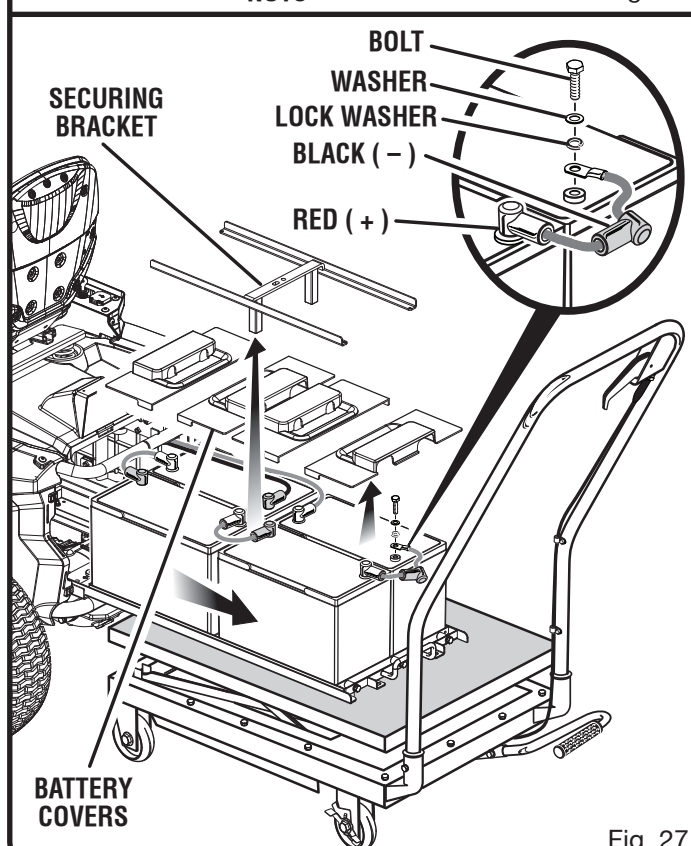


Fig. 27

MAINTENANCE

- Replace battery or batteries as needed and reinstall cables. Connect the positive (red) cable first, then the negative (black) cable, being careful not to short across the terminals.

- Reinstall the battery covers and the battery securing bracket.

- Push the battery tray back inside the mower just enough to allow you to reconnect the battery quick-connect plug.

NOTE: To gain enough leverage to reconnect, it is often easier to connect from the battery compartment area rather than the area under the seat.

- Once the batteries are reconnected to the mower, push the battery tray fully back inside the mower.

- Reinstall flange bolts and flange nuts to secure outside edge of battery tray. Tighten securely.

- Reinstall hex head bolt to secure battery tray in place. Tighten securely.

- Replace battery compartment cover and reinstall hardware to secure.

NOTE: Make sure the tabs on the battery compartment cover are seated in the slots on the mower top and side panels before tightening screws.

- Reinstall wiring cover and push down until it latches securely in place, then lower the mower seat.

NOTE: Always ensure the safety interlock cable connection is still fully seated when replacing the wiring cover.

NOTE: Always abide by the safety warnings provided with the battery. Dispose of old battery according to local and state regulations.

CHANGING/ADDING TRANSAXLE OIL

See Figure 28.

NOTE: To access the transaxle, you must remove the battery tray from the mower. Refer to the section **Replacing the Batteries** for instructions on how to fully extend the battery tray, then continue to extend the tray all the way out of the mower so that you can access the transaxle. Once the battery tray is removed, you may proceed with the steps below.

- Park the mower on a flat, level surface. Allow the mower to cool before draining transaxle oil.
- Place a container underneath the transaxle oil drain plug.
- Remove the fill hole plug from the top of the transaxle.
- Remove the drain plug and drain the old oil.
- Clean the bottom drain plug, then reinstall plug and tighten securely.
- Pour 250cc new, clean GL4 80W/90 gear oil into the fill hole.
- Reinstall fill hole plug and tighten securely. Do not over-tighten.

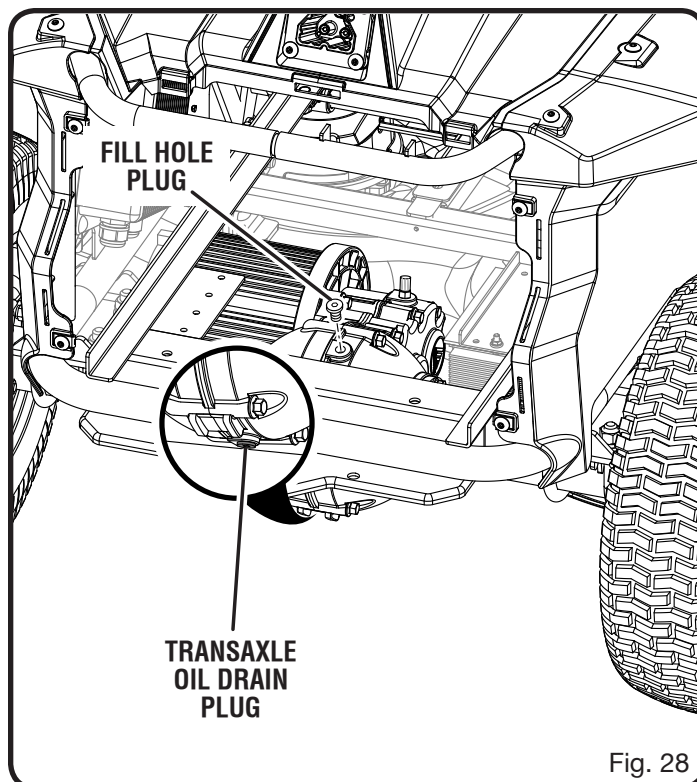


Fig. 28

- Reinstall the battery tray as described in **Replacing the Batteries**.

NOTE: Consult hazardous waste management guidelines in your area for the proper way to dispose of used gear oil.

STORING THE MOWER

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

- Remove any build-up of grass and leaves on or around the motor cover. Wipe the mower clean with a dry cloth. Do not spray with a garden hose to clean.
- Plug the mower up to charge for the entire time of storage.

NOTE: If it is not possible to leave the mower charger connected during storage, charge the batteries at least once a month during storage.

- Store mower in a clean, dry place that is inaccessible to children. Do not store near any appliance that operates with flame such as a gas water heater, clothes dryer, or furnace.

NOTE: Do not leave the key in the mower during storage.

- If the mower must be stored outside, make sure it is covered completely to protect it from the elements.
- Keep away from corrosive agents such as garden chemicals and de-icing salts.

MAINTENANCE

PREPARING FOR USE AFTER STORAGE

The following steps should be taken before using the mower after it has been stored:

- Review maintenance chart.
- Fully charge the batteries.
- Check tire pressure and inflate as needed.
- Briefly drive the mower and check all systems and components to ensure they are functioning correctly.

BATTERY REMOVAL AND PREPARATION FOR RECYCLING



To preserve natural resources, please recycle or dispose of batteries properly.

This product uses lead acid 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.



WARNING:

Upon removal, cover the battery's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery or remove any of its components. Lead acid batteries must be recycled or disposed of properly. Also, never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

MAINTENANCE SCHEDULE

	Inspect Before Each Use	Every 25 Hours	Every 50 Hours or Yearly	Every 100 Hours	Before Storage
Check Brake Operation	X				
Check Tire Pressure	X				
Check Safety Interlock System	X				
Check for Loose Fasteners	X				X
Clean Debris From Mower	X		X		X
Check/Replace Mower Blades		X	X		
Lubricate mower pivot points, front axle pivot and axle spindles, front axle wheel bushings, and deck pivot points.		X			
Adding Oil to Transaxle				X	
Clean Battery Terminals			X		

NOTE: Maintenance should be performed more frequently when mower is used in dusty areas.

When mower has exceeded the maximum figures specified in the table, maintenance should still be cycled according to the intervals of time or hours stated herein.

If you are unsure how to perform any of the maintenance items listed above, take the mower to an authorized service center for assistance.

ACCESSORIES

To order these accessories, visit us online at www.ryobitools.com or call 1-800-860-4050.

- Bagging Kit (includes Bagger Assembly and Bagger Blades)..... ACRM001
- Combo Blades (for Mulching and Side Discharge) ACRM002
- Bagger Blades ACRM003
- Canopy Attachment Kit ACRM004



WARNING:

Current attachments and accessories available for use with this product are listed above. Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

TROUBLESHOOTING

IF THESE SOLUTIONS DO NOT SOLVE THE PROBLEM CONTACT YOUR AUTHORIZED SERVICE DEALER.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Mower not starting.	Battery charge is low. Charger is connected to mower. Start key not installed or is in OFF position. Poor battery cable connections.	Charge the battery. Disconnect charger from mower. Install start key and turn to ON position. Check/clean all battery connections.
Mower won't move.	Start key not installed or is in OFF position. Parking brake is set. Direction control switch is in neutral (N). Brake is depressed and/or accelerator pedal is not pressed. Charger is connected to mower.	Install start key and turn to ON position. Release parking brake. Place direction control switch in desired direction (forward or reverse). Release the brake pedal and press the accelerator. Disconnect charger from mower.
Mower cutting grass unevenly.	Uneven tire pressure. Mower deck not level. Worn, bent, loose, or dull blade. Build-up of debris under mower. Mowing speed is too fast.	Check tire pressure in all four tires. Perform cutting deck level adjustment. Replace blade. Clean underside of mower housing. Mow at a slower speed.
Mower not mulching properly.	Wet grass clippings sticking to the underside of the deck. Grass is too high. Worn, bent, loose, or dull blade. Mowing speed is too fast.	Wait until the grass dries before mowing. Mow once at a high cutting height, then mow again at the desired height. Replace blade. Mow at a slower speed.
Mower vibrating at higher speed.	Blade is unbalanced, loose, or excessively or unevenly worn. Bent motor shaft.	Replace the blade. Stop the motor and remove start key. Inspect for damage. Have repaired by an authorized service center before restarting.
Poor grass discharge.	Side discharge chute or opening is plugged. Grass is wet. Mowing speed is too fast. Grass is too high.	Clean side discharge chute and/or opening. Allow grass to dry before mowing. Mow at a slower speed. Mow once at a high cutting height, then mow again at the desired height.
Motor stops while cutting.	Cutting height set too low. Battery charge is low.	Raise the cutting height. Charge the battery.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Blades do not rotate.	Battery charge is low. Blade engage knob is down. Operator is not fully seated. Build-up of debris under mower.	Charge the battery. Raise blade engage knob. Sit down fully on the seat. Clean underside of mower housing.
Blades do not rotate while moving in reverse.	Reverse mode option is off. Blade engage knob is down.	Press reverse mode button to activate. Raise blade engage knob.
Mower won't reach full speed.	Battery charge is low.	Charge the battery.
Blades continue to turn after operator leaves seat without parking brake set.	Safety interlock system is not functioning correctly.	Ensure safety interlock system seat plug is fully connected. If blades still won't stop, take mower to authorized service center for repair.
Headlights not working.	Headlights are off. Headlights are damaged.	Press headlight button to turn headlights on. Replace headlights.
Battery will not charge.	Bad battery cells. Poor cable connections.	Replace battery. Check/clean all battery connections.



MAKE THE MOST OF YOUR PURCHASE!

Go to <http://register.ryobitools.com> and register your new tool on-line.

Your product has been fully tested prior to shipment to ensure your complete satisfaction.

For any questions about operating or maintaining your product, call the Ryobi Help Line!

TROUBLESHOOTING

CHARGER ERROR CODES

CODE	MEANING	SOLUTION
One red flash	Charge Enable Fault — May indicate poor contact at the charger connector or that battery temperature is too hot (greater than 122°F).	Check charger/mower connection and remove any debris. Allow hot batteries to cool. Then try charging again.
Two red flashes	Battery Voltage Fault — May indicate installed battery or batteries are less than 36 V or more than 67.2 V, or that battery or batteries are too discharged or overcharged to be charged.	Batteries must be charged by another means in order to bring them up to 36 V or mower must be run in order to discharge batteries to 67.2 V.
Three red flashes	Battery Charge Timeout: Charge Time Exceeded — May indicate a problem with the mower batteries or that charger output current was severely reduced due to high ambient temperatures.	Disconnect charger. Allow batteries to cool, then try charging again.
Four red flashes	Battery Fault: Charge Time Exceeded — Indicates a problem with battery voltage not attaining the required nominal level within the maximum time allowed.	Disconnect charger. Check battery series configuration to be sure batteries are properly connected. Allow batteries to cool, then try charging again.
Five red flashes	Temperature Delay — Charger had to turn off its output due to excessive internal temperature.	Make sure the charger cooling fins are clear of obstruction and that the charger itself is not sitting in direct sunlight. If charger is hot, allow to cool before attempting to charge again.
Six red flashes	Charger Fault: Internal Fault Detected	Unplug charger, then plug back in and try charging again.

In all fault conditions, if suggested remedy does not clear the fault and allow the batteries to charge, take charger to authorized service center for repair or replacement.

WARRANTY

LIMITED WARRANTY STATEMENT

Techtronic Industries North America, Inc., warrants to the original retail purchaser that this RYOBI® brand outdoor product is free from defect in material and workmanship and agrees to repair or replace, at Techtronic Industries North America, Inc.'s, discretion, any defective product free of charge within these time periods from the date of purchase.

- Three years if the product is used for personal, family or household use. Battery warranty is for one year only.
- 90 days, if used for any other purpose, such as commercial or rental. This includes batteries.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of Techtronic Industries North America, Inc. to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized service center for RYOBI® brand outdoor products (Authorized Ryobi Service Center).

The product, including any defective part, must be returned to an authorized Ryobi service center within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Techtronic Industries North America, Inc.'s, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any RYOBI® brand outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized service dealer.

This warranty is limited to ninety (90) days from the date of original retail purchase for any RYOBI® brand outdoor product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the RYOBI® brand outdoor product or adversely affect

its operation, performance, or durability. In addition, this warranty does not cover:

A. Wear items – Knobs, Hitch Pins, Blades, Tires, Brakes

Techtronic Industries North America, Inc., reserves the right to change or improve the design of any RYOBI® brand outdoor product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE THREE-YEAR OR NINETY-DAY WARRANTY PERIOD. TECHTRONIC INDUSTRIES NORTH AMERICA, INC.'S, OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND TECHTRONIC INDUSTRIES NORTH AMERICA, INC., DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN AUTHORIZED RYOBI SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all RYOBI® brand outdoor products manufactured by or for Techtronic Industries North America, Inc., and sold in the United States and Canada.

To locate your nearest Authorized Ryobi Service Center, dial 1-800-860-4050.