

RYOBI®

RY48ZTR100

ORIGINAL INSTRUCTIONS

Zero-Turn Mower



Important!

It is essential that you read the instructions in this manual before assembling, operating, and maintaining the product.

Subject to technical modification.

Safety, performance, and dependability have been given top priority in the design of your zero-turn mower.

INTENDED USE

The zero-turn mower is intended for outdoor use only.

The product is designed for domestic lawn mowing. The cutting blade should rotate approximately parallel to the ground over which it is being driven. All four wheels should touch the ground while mowing.

It should not be used to cut anything other than domestic grass lawns.

Do not use the product for any other purpose.

GENERAL SAFETY WARNINGS

WARNING

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

Save all warnings and instruction for future reference.

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

WORK AREA SAFETY

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

ELECTRICAL SAFETY

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

- **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.



- **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- **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 tool in unexpected situations.

BATTERY TOOL USE AND CARE

- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or 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 pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130°C may cause explosion.
- **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

SERVICE

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

ZERO-TURN MOWER SAFETY WARNINGS

- Before use, always visually inspect the product to ensure that the blades, blade nuts, and cutter assembly are not worn or damaged.
- Replace worn or damaged blades and nuts in sets to preserve balance.
- The blade on the product is sharp. Use extreme caution and wear heavy-duty gloves when fitting, replacing, cleaning, or checking bolt security of the blades.
- Contact an authorised service centre to replace damaged or unreadable labels.
- Check all nuts, bolts, and screws at frequent intervals for proper tightness to be sure that the product is in safe working condition.
- Frequently check the bagger kit for wear, holes, or deterioration.
- The product must be started with the user properly seated and behind the drive levers. Never start the product if:
 - not all four wheels are on the ground
 - the side discharge chute is exposed and is not protected by the mulch cover
 - hands and feet of all persons are not clear of the cutting enclosure
- Make sure that the lawn is clear of stones, sticks, wires, toys, tree branches, and other objects that could damage the 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 product in any direction and cause serious personal injury to the operator and others.
- Do not charge the product in the rain or in wet locations.
- Do not force the product. It will do the job better and safer at the speed for which it was designed.
- Stop the blade when crossing gravelly surfaces to avoid discharging gravel and rocks. Drive the product slowly and carefully to avoid loss of control.
- Turn on the motor carefully according to the instructions, and keep hands and feet away from the blades. Do not put hands or feet near or under rotating parts.
- Before and while backing up, look behind and down for small children, bystanders, and pets.
- Never carry children, even when the blades have stopped. They may fall off and be seriously injured or interfere with the safe operation of the product. 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.
- Never leave a running product unattended. Always stop the blades, engage the parking brake, stop the motor, and remove the start key before dismounting.
- Check the brakes before each use and during use. Adjust and service the brakes as required.
- Keep hands and feet away from the 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.





- Maintain the product with care. Keep the product in good working condition. Keep blades sharp and guards in place and in working order. To prevent serious personal injury, prevent damage to the product, and to maintain best performance, replace damaged or unevenly worn out blades.
- Turn off the product, engage the parking brake, and remove the start key. Make sure that all moving parts have come to a complete stop:
 - before leaving the product unattended (including disposal of grass clippings)
 - before clearing blockages or unclogging discharge chute
 - before checking, cleaning, or working on the product
 - before opening the mulch cover
 - after striking a foreign object
 - thoroughly inspect the product for any damage
 - replace the blade if it is damaged in any way
 - repair any damage before restarting and continuing to operate the product.
 - whenever the product starts to vibrate abnormally (check immediately)
 - inspect for damage, particularly the blades
 - replace the blade if it is damaged in any way
 - replace or repair any damaged parts
 - check for and tighten any loose parts
- Replace the blade if it is bent or cracked. An unbalanced blade causes vibration that could damage the motor drive unit or could cause personal injury.
- 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 use the product without the side discharge chute in place and working properly. The mulch cover should be correctly installed and working properly during mulching operation.
- Never interfere with the intended function of a safety device or reduce the protection provided by a safety device. Check the proper operation of the safety devices regularly.
- Never tamper with safety devices. Check for proper operation regularly.
- Follow the manufacturer's instructions for proper operation and installation of accessories. Use only accessories approved by the manufacturer. The use of other accessories may increase the risk of injury.
- Never direct discharged material toward anyone. Plan the mowing pattern to avoid discharge of material toward bystanders, roads, sidewalks, windows, and cars. Avoid discharging material against a wall or obstruction, which may cause the material to ricochet back toward the operator.
- Never make any adjustments or repairs while the motor is running and the blades are moving. Turn off the power switch, and remove the start key.
- Turn off the product, engage the parking brake, and remove the start key. Make sure that all moving parts have come to a complete stop before unclogging the side discharge chute or opening. The cutting blades continue to rotate for a few seconds after the motor is turned off. Never place any part of the body in the blade area until the blades have stopped rotating.
- Disengage the mower blades when the product is not in use.
- Be aware of possible hazards when not using the product or when changing accessories. Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- Allow only responsible adults who are familiar with and who understand the instructions to use the product.
- Never carry passengers.
- Never use the product in a closed area.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing up.
- Slow down before turning.
- Watch for traffic when operating near or crossing roadways.
- Remove the start key from the product before storing, servicing, or changing accessories. Such preventive safety measures reduce the risk of starting the product accidentally.
- Follow instructions for changing accessories.

ADDITIONAL SAFETY WARNINGS

UNPACKING

- Inspect the product carefully to ensure that no breakage or damage occurred during shipping.
- If any parts are damaged or missing, contact an authorised service centre.

ASSEMBLY

- Strictly adhere to all torque wrench tightening specifications. Failure to do so could cause serious personal injury.
- Any person attempting to assemble the product must have proper training and experience. Read this manual carefully, and follow all assembly procedures in this manual.
- All assembly must be completed with the product on a level surface.
- If any parts are damaged or missing, do not assemble the product until the parts are replaced with new original manufacturer's parts. Assembling the product with damaged, missing, or incorrect parts could result in serious personal injury.
- Do not attempt to modify the product or create accessories that are not recommended for use with the product. Any such alteration or modification is a misuse and could result in a hazardous condition leading to possible serious personal injury.



OPERATION

- Before starting the product:
 - Ensure that the work area is clear of children, bystanders, and pets.
 - Clear the work area of objects that may be thrown by the mower blades.
 - Check the brake operation.
 - Check the tire pressure.
 - Check for loose fasteners.
 - Make sure that all guards are in place and working properly.
 - Clean debris from mower.
 - Test the safety interlock system.
 - Adjust the seat to the preferred position.
 - Verify the battery charge level.
- Ensure that 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.
- Hold the deck height adjustment lever firmly when setting the deck height, and release the lever only when it is secure in the preferred slot. Quickly letting go of the lever may create a pinching or pulling hazard to the operator's hand.
- If the product beeps after you leave the seat, verify that the parking brake is engaged and the key has been removed. Failure to engage the parking brake could cause the product to move. Leaving the key could allow unauthorised use that could result in serious personal injury.

SLOPE OPERATION

- 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 the product on steep slopes greater than 15°. Make a copy or cut out the "Slope Guide" at the back of this manual and use it to determine if your slope is too steep for safe operation.
- Never attempt to ride on a steep slope or mow a slope that is greater than 15°.
- Mow up and down; not across the face of slopes.
- Avoid holes, ruts, bumps, rocks, property stakes, or other hidden objects. Uneven terrain could overturn the product. 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 when on a slope. Tires may lose traction and you may lose control.
- Press the low speed drive button to limit the speed of the mower when operating in tight spaces or on 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 product to roll over.

- Do not try to stabilise the product by putting your foot on the ground.
- Do not use the product near drop-offs, ditches, excessively steep slopes, or embankments. The product could suddenly roll over if a wheel goes over the edge or if the edges cave in resulting in death or serious personal injury.







CHARGING THE PRODUCT

- Mower batteries must be charged for 24 hours before first use. To verify that the mower batteries are fully charged, check the battery level indicator. 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, without covering the cooling fins.
- The charger is equipped with a plug featuring a grounding pin and must be plugged into a matching outlet that has been properly installed and grounded in accordance with all local codes and ordinances. Do not use adaptors or modify the plug provided. If it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- When you are ready to mow, disconnect the charger from the power supply, then disconnect the charger from the mower.
- Always turn the power switch to the OFF position and remove the start key when charging the product and when the product is not in use.
- Always connect the mower to the charger when it is not in use. If it is not possible to leave the mower charger connected, make sure to fully charge the batteries at least once a month.
- Charge the product in a well-ventilated area. Do not charge the product in a confined space.
- When powered, the LED indicator on the charger illuminates to indicate the charger's status. Refer to the following charts to determine the meaning of the LED's display.

Battery LED indicator

LED	Battery level status
Short green flash	<80% charged
Long green flash	>80% charged
Solid green	100% charged

Charger LED indicator

LED	Charging status
	Flashing: Charger internal temperature is high. Charging output is reduced.
 Ammeter (Amber)	Solid: Displays the power level of charging output. The power level decreases as the batteries are charged to 100%.
 80% charge (Amber)	Flashing: Batteries are disconnected. Check battery and charger connections. Solid: Batteries are 80% charged.
 100% charge (Green)	Flashing: Batteries are about 90% charged. Solid: Batteries are 100% charged. Charger is in maintenance mode, monitoring and keeping the battery at 100% charged.
 AC on (Amber)	Flashing: Low AC voltage. Check the voltage source if it matches the charger power rating. Make sure that the extension cord length is less than 30 m and that the cord is rated for 6 A. Solid: AC power is good.
 Fault (red)	Flashing: Charger error. Reset the charger power, and refer to the "Charger error codes" section.

TOWING SAFETY WARNINGS

- 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 the product.
- Total towed weight must not exceed the maximum towing load of 226.8 kg (500 lbs.).
- Attach tow equipment only at the hitch plate.
- Never allow anyone to ride on the 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.

ADDITIONAL BATTERY SAFETY WARNINGS

⚠ WARNING

To reduce the risk of fire, personal injury, and product damage due to short circuit, never immerse your tool, battery pack, or charger in fluid or allow a fluid to flow inside them. Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach-containing products, etc., can cause a short circuit.

⚠ WARNING

Risk of fire, explosion, or burns. Do not disassemble, expose to heat above 60°C, or incinerate the battery pack.

- The battery pack contains acid. If acid comes in contact with skin or clothing, flush immediately with water for 10 minutes. If liquid comes in contact with eyes, seek medical help immediately.
- Do not charge battery packs that show signs of leaks. Dispose of them properly.
- Do not charge the battery pack at temperatures above 49°C (120°F).

BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

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

The product contains lead-acid batteries. Local regulations may prohibit disposal of lead-acid batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.

⚠ WARNING

Upon removal, cover the battery pack terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Lead-acid batteries must be recycled or disposed of properly. Never touch both terminals with metal objects and 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.

FEATURES

KNOW YOUR PRODUCT

See page 13.

For safety, read and understand the information on the product and in this manual. Familiarise all operating features and safety rules before using the product.

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 product has been used (key in on position) for maintenance purposes.



BLADE ENGAGE KNOB

The blade engage knob activates or stops the cutting blades. Pull up the blade engage knob to activate the cutting blades. Push down the knob to stop the cutting blades.

BRAKE PEDAL

The brake pedal slows down or stops the product.

CHARGER

The charger recharges the batteries of the mower. It has a keyhole 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 the charger in such a way that the LED status lights are visible while charging.

DECK HEIGHT ADJUSTMENT LEVER

The deck height adjustment lever raises or lowers the cutting deck.

HEADLIGHT BUTTON

The headlight button turns ON and OFF the headlights.

LOW SPEED CUT BUTTON

The low speed cut button prolongs battery run time when the cutting load requirement is low.

LOW SPEED DRIVE BUTTON

The low speed drive button limits the speed of the mower when you are operating in tight spaces or no slopes. This setting is also useful for inexperienced users when they are first learning to operate the mower.

MEDIA STORAGE

The media holders provide a convenient place to store your mobile phone or MP3 player when charging with the USB port.

MULCH COVER

The mulch cover covers the side discharge chute, which allows the mower blade to cut and recut for finer clippings.

PARKING BRAKE

The parking brake locks the product in the brake position.

POWER SWITCH WITH START KEY

The power switch turns ON and OFF the product. 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.

SAFETY INTERLOCK SYSTEM

The safety interlock system stops the blades if the operator leaves the mower while the blades are running.

Test the system before each use to ensure it is working correctly.

- Position the mower on a level surface.
- Engage the parking brake.
- Position the drive levers in the neutral position.
- Push down the blade engage knob.

- Insert the start key and turn the key to the ON position.
- Pull the blade engage knob to activate the blades.
- Briefly stand up but do not get off the mower.

The blades should stop within 5 seconds. If the blades do not stop, contact an authorised service centre.

Do not operate the mower until the safety interlock system has been repaired.

SEAT ADJUSTMENT LEVER

The seat adjustment lever moves the seat to the preferred position.

USB PORT

The USB charging port provides charging power of 5 V DC at up to 2 A for your cell phone, MP3 player, or other USB devices. Check the manual of 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 product to charge your device.

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

⚠ WARNING

Attempting to charge devices rated more than 2 A could damage the USB charging port and the mower. Always close the USB cover when not in use to prevent trapping debris in the port.

⚠ WARNING

Never use headphones or any electronic device, such as a smart phone or tablet, while operating the product. A lapse in concentration while operating the product could result in serious personal injury to the operator or a bystander.

GENERAL MOWING TIPS

- Keep the mower blades sharp.
- 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 discharge away from shrubs, fences, and driveways. 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 for more effective cutting and a proper discharge of the clippings.
- Do not cut wet grass. Wet grass sticks 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 the product with a garden hose to clean.



- To prevent scalping the lawn when encountering high spots, the cutting deck wheels should be positioned approximately 1.25 cm off the ground when the mower is at the lowest cutting height. When shipped, the cutting deck wheels are set to the 3.8 cm position.
- When the level of battery charge reaches the red zone on the battery charge indicator, the blades automatically stop. Immediately return to the charging location, and recharge the mower. Continuing to mow when the battery charge level is in the red zone causes the mower to be stranded away from the charging area.
NOTE: If the mower is stranded away from the charger, place the drive levers to neutral position and push the mower back to the charging location.
- If your lawn appears unevenly cut after using the mower, make sure tires are properly inflated to the recommended air pressure when mowing. If uneven cutting issues persist, contact an authorised service centre.

TRANSPORTATION AND STORAGE

- Turn off the product, engage the parking brake, and remove the start key. Make sure all moving parts have come to a complete stop. Allow the product to cool down before storing or transporting.
- Clean all foreign materials from the product. Store the product in a cool, dry, and well-ventilated place that is inaccessible to children. The start key should be removed and stored in a separate location out of the reach of children.
- Keep the product away from corrosive agents such as garden chemicals and de-icing salts. Do not store the product outdoors.

TRANSPORTING LEAD-ACID BATTERIES

Transport the battery in accordance with local and national provisions and regulations.

Follow all special requirements on packaging and labelling when transporting batteries by a third party. Ensure that no batteries can come in contact with other batteries or conductive materials while in transport by protecting exposed connectors with insulating, non-conductive caps or tape. Do not transport batteries that are cracked or leaking. Check with the forwarding company for further advice.

TRANSPORTING THE PRODUCT

WARNING

Use extra care when loading or unloading the product onto a trailer. Press the low speed drive button and carefully move the drive levers as needed to control the speed. Always back up onto the trailer when loading. When loading or unloading the product, do not exceed the maximum recommended operation angle of 15°. 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 product 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 product can go off the ramp or trailer, causing the product to pivot or tip over, and result in a crush hazard that can cause death or serious personal injury.

- Use one full width loading ramp that is at least 30.5 cm wider than the mower to minimise the risk of the wheels going off the side of the ramp.
- Position and secure ramp to the trailer according to manufacturer's instructions.
- Turn off the product, engage the parking brake, and remove the start key.
- Secure the product as needed using straps or cables to prevent movement during transport.

WARNING

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

STORING THE PRODUCT

- Remove any build-up of grass and leaves on or around the motor cover. Wipe the product clean with a dry cloth. Do not spray the product with water to clean.
- Plug the product 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 the product in a clean and 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 start key in the product during storage.
- If the product must be stored outside, make sure that it is covered completely to protect it from the elements.

PREPARING FOR USE AFTER STORAGE

Perform the following steps before using the product after it has been stored:

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

MAINTENANCE

WARNING

Use only original manufacturer's replacement parts, accessories and attachments. Failure to do so can cause possible injury, can contribute to poor performance, and may void your warranty.

WARNING

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. Have the product serviced by an authorised service centre only. When servicing, use only original replacement parts.

WARNING

Before each use, inspect the entire product for damaged, missing, or loose parts such as screws, nuts, bolts, and caps. Tighten securely all fasteners and caps, and do not operate this product until all missing or damaged parts are replaced.

- Turn off the product, engage the parking brake, and remove the start key. Make sure that all moving parts have come to a complete stop before servicing, cleaning, or performing maintenance tasks.
- You may make adjustments and repairs described in this manual. For other repairs, have the product serviced only by an authorised service centre.
- Service on the product and the charger must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- Replace worn or damaged part for safety.
- After each use, clean the product with a soft, dry cloth. Any part that is damaged should be properly repaired or replaced by an authorised service centre.
- Keep product free of grass, leaves, or other debris build-up.
- Do not spray with water to clean the product. Use an air moving device, such as a compressor or leaf blower to clean the product.
- Be careful during adjustment of the product to prevent entrapment of the fingers between moving blades and fixed parts of the product.
- Mower blades are sharp. Wrap the blades or wear gloves, and use extra caution when servicing.
- When servicing the blades, be aware that even though the power source is turned off, the blades can still be moved.
- The blade nuts must be tightened to the recommended torque.
- 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, and grease.

- 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.

WARNING

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

CUTTING BLADES

- Use only original replacement blades and blade nuts authorised by the manufacturer of your zero-turn mower. Use of blades and blade nuts that are not authorised is hazardous and may damage your zero-turn mower.
- If raising the mower to access the blades, make sure that the mower is properly secured and the parking brake is engaged before proceeding. Failure to properly secure the mower could cause it to fall, resulting in death or possible serious personal injury.

TIRE MAINTENANCE

The product is equipped with tubeless tires with the following dimensions:

- Front: 38 x 15 x 15 cm
- Rear: 40 x 16 x 20 cm

When tires are worn, the traction of the mower decreases, which increases the chance of having an accident. Replace the tires when the depth on the tread is 4 mm or less, or any time there is damage to the tire. Always use original replacement tires. Using improper tires on the product could cause loss of control, which could cause serious personal injury.

Have the tires replaced only by an authorised service centre.

TIRE AIR PRESSURE

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

- Front: 19 psi
- Rear: 22 psi

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, replace the tire.

BRAKE ADJUSTMENT

Being able to stop the mower properly is critical to mowing safety. If the mower travels farther before stopping when the brake pedal is pressed, the brakes may need adjusting.

WARNING

Ensure the brakes are properly functioning at all times and prior to each use. Improper brake function can cause loss of control in an emergency situation and result in death or serious personal injury.

To test:

- Park the product on a level surface, and engage the parking brake.
- Set the drive levers in the open position.
- Stand behind the product and try to push it forward. If the rear tires turn, the brakes need to be tightened.

To tighten:

- Locate the brake adjustment nuts along the frame in front 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 product at normal speed on flat ground to ensure the mower stops quickly when the brake pedal is pressed.

CLEARING BLOCKAGES

- Turn off the product, engage the parking brake, and remove the start key. Make sure that all moving parts have come to a complete stop.
- Always wear heavy-duty gloves when checking or clearing a blockage. The blades are sharp, and the blockage itself could be a sharp object.
- Remove the bagger kit, check for and carefully clear obstructions.
- Check the side discharge chute for blockages and carefully clear.
- If any blockages are found, remove carefully. Remember, the blade may move during cleaning.

RESIDUAL RISKS

Even when the product is used as prescribed, it is still impossible to completely eliminate certain residual risk factors. The following hazards may arise during use, and the operator should pay special attention to avoid the following:

- injury caused by vibration
 - Always use the right tool for the job. Use designated handles and restrict working time and exposure.
- injury from contact with the blades
 - Keep unprotected body parts away from the blades at all times.
- injury caused by thrown objects
 - Wear full eye protection at all times.

RISK REDUCTION

It has been reported that vibrations from handheld tools may contribute to a condition called Raynaud's Syndrome.

Symptoms may include tingling, numbness and blanching of the fingers, usually apparent upon exposure to cold. Hereditary factors, exposure to cold and dampness, diet, smoking and work practices are all thought to contribute to the development of the these symptoms. There are measures that can be taken by the operator to possibly reduce the effects of vibration:

- Keep your body warm in cold weather. When operating the product, wear gloves to keep the hands and wrists warm. It is reported that cold weather is a major factor contributing to Raynaud's Syndrome.
- After each period of operation, exercise to increase blood circulation.
- Take frequent work breaks. Limit the amount of exposure per day.

If you experience any of the symptoms of this condition, immediately discontinue use and see your physician.

WARNING

Injuries may be caused, or aggravated, by prolonged use of a tool. When using any tool for prolonged periods, ensure you take regular breaks.

WHAT'S IN THE BOX

See page 12.

- Zero-turn mower x 1
- Seat x 1
- Charger x 1
- Power cable x 1
- Mulch cover x 1
- Hitch plate x 1
- Drive levers x 2
- Start key x 2
- Wrenches x 2
- M8 x 55 bolts x 2
- M8 x 25 bolts x 4
- M8 x 20 x 4 bolts x 2
- M8 washers x 2
- M8 nuts x 2
- T-30 Screwdriver x 1
- Operation manual x 1

SYMBOLS ON THE PRODUCT



Safety alert



Please read the instructions carefully before starting the product.



Wear eye protection.



Beware of thrown or flying objects.



Do not operate within 30.5 m of children, bystanders, or animals.



Never carry children or anyone even when the blades are off.



Always look down and behind before and when manoeuvring in reverse or turning around.



Do not operate on inclines greater than 15°. Mow across the face of slopes, never up and down.



Stay at least two moving widths (2.14 m) away from any ditches, drop-offs, or water. Front caster wheels can rotate when mower is stopped, even with the brake applied, and can cause mower to go over the edge or into the water.



Keep hands and feet away from rotating blades.



Do not expose the battery, battery compartment, or electronic components to rain, water, or liquids.



Do not charge the battery or expose the product to rain or damp conditions.



The guaranteed sound power level is 105 dB(A).



Regulatory Compliance Mark (RCM). This product meets applicable regulatory requirements.



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.



Pull up the blade engage knob to engage the blades. Push down the blade engage knob to disengage the blades.



Non-spillable. Battery must be recycled.



For indoor use only.

SYMBOLS IN THIS MANUAL



Note



Warning



Parts or accessories sold separately



Wear non-slip, heavy-duty gloves.



Connect to power outlet.



Disconnect from power outlet.



Lock



Unlock



Stop

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

DANGER

Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

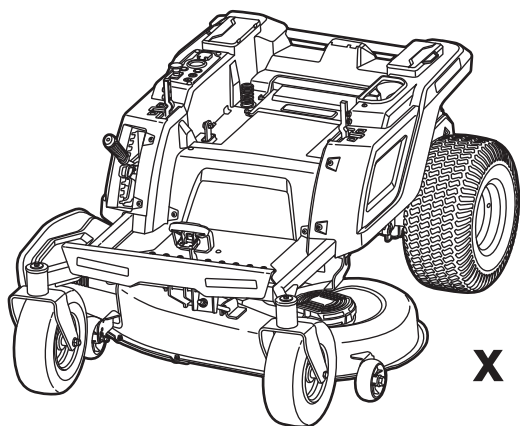
CAUTION

Without safety alert symbol

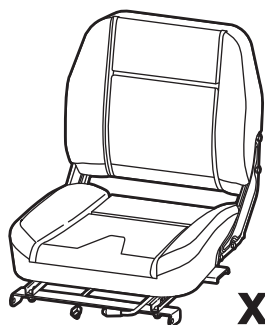
Indicates a situation that may result in property damage.



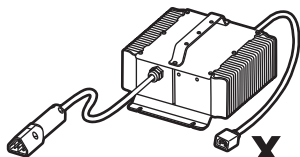
WHAT'S IN THE BOX



x 1



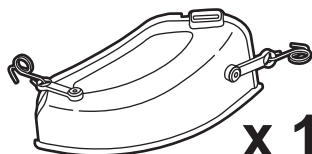
x 1



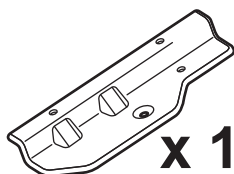
x 1



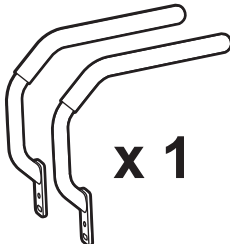
x 1



x 1



x 1



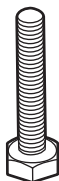
x 1



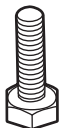
x 2



x 1



x 2



x 4



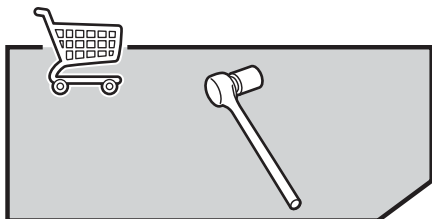
x 2



x 2



x 2



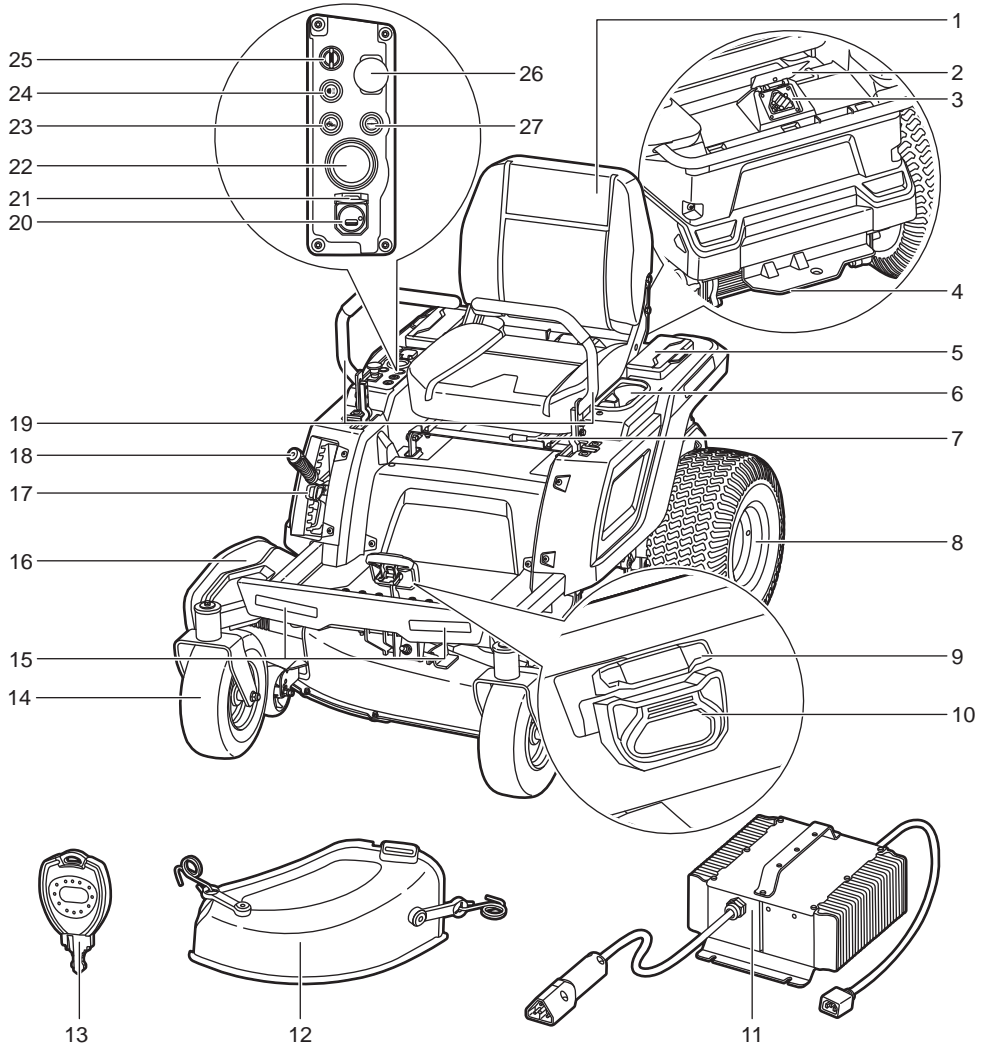
x 1



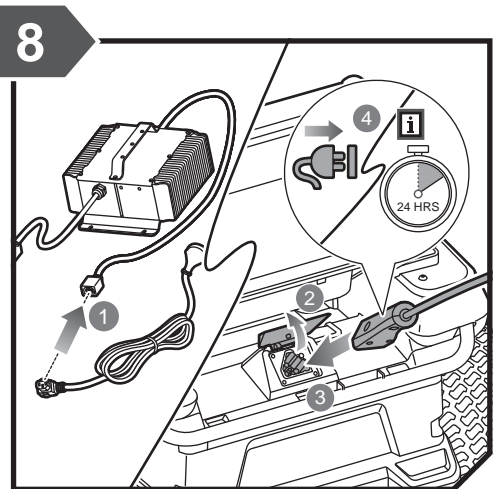
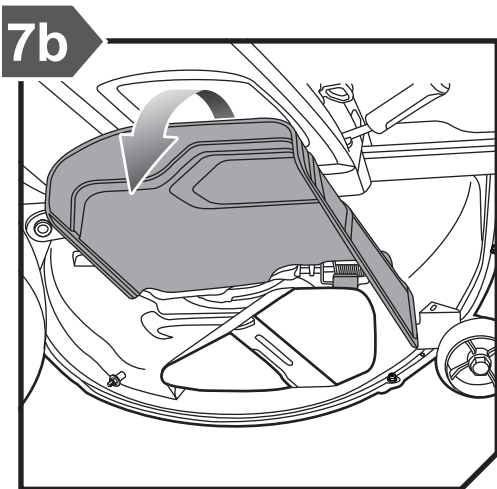
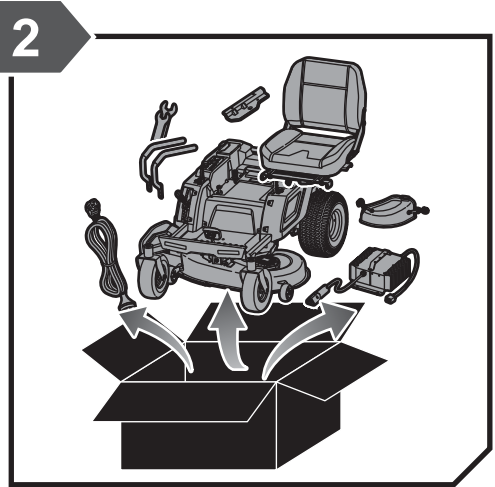
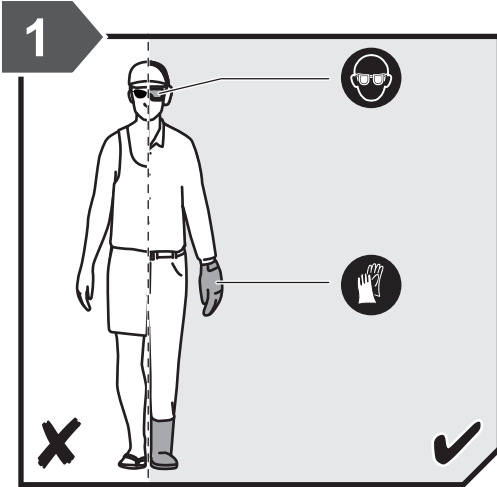
x 1

KNOW YOUR PRODUCT

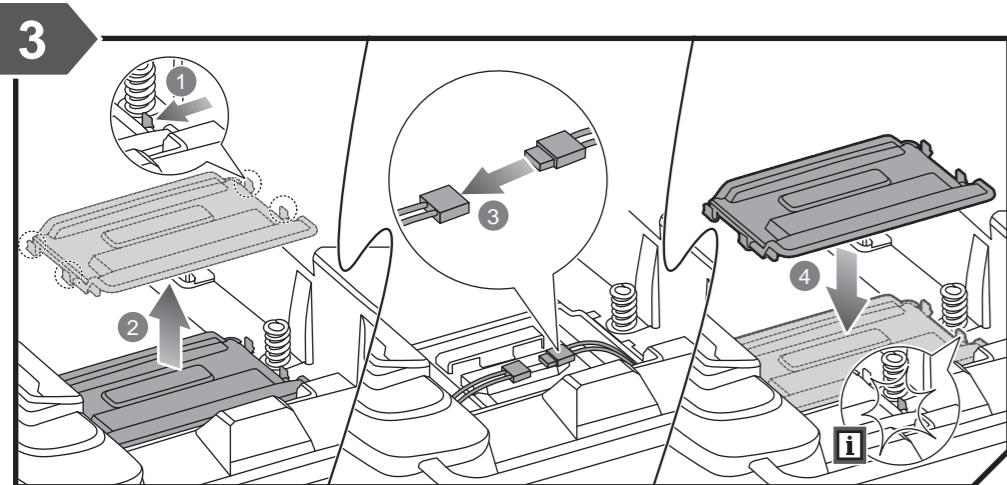
- | | |
|--------------------------|--|
| 1. Seat | 15. Headlights |
| 2. Charging port cover | 16. Side discharge chute |
| 3. Charging port | 17. Auto stop plug |
| 4. Hitch plate | 18. Deck height adjustment lever |
| 5. Media storage | 19. Drive levers |
| 6. Cup holders | 20. USB port |
| 7. Seat adjustment lever | 21. USB port cover |
| 8. Rear tire | 22. Battery level indicator / hour-meter |
| 9. Parking brake | 23. Low-speed drive button |
| 10. Brake pedal | 24. Headlight button |
| 11. Charger | 25. Power switch |
| 12. Mulch cover | 26. Blade engage knob |
| 13. Start key | 27. Low-speed cut button |
| 14. Front caster wheels | |



GETTING STARTED

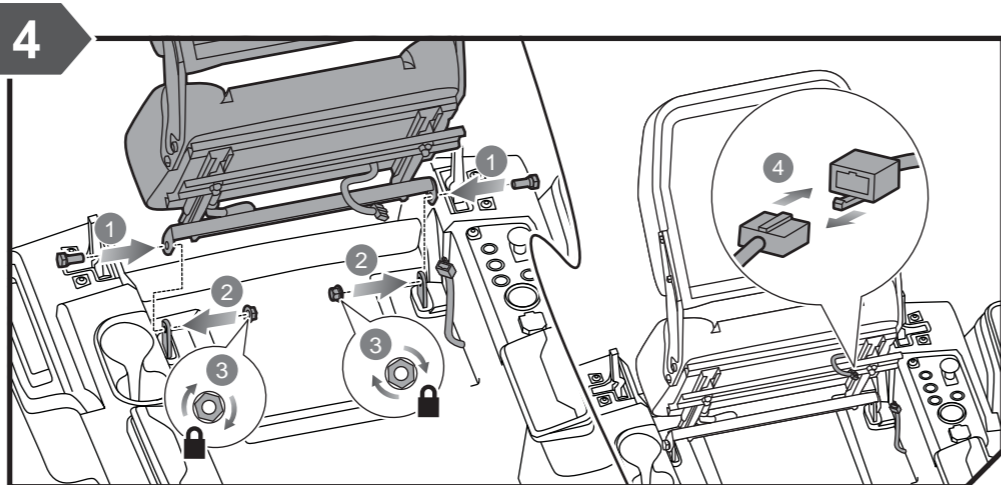


GETTING STARTED



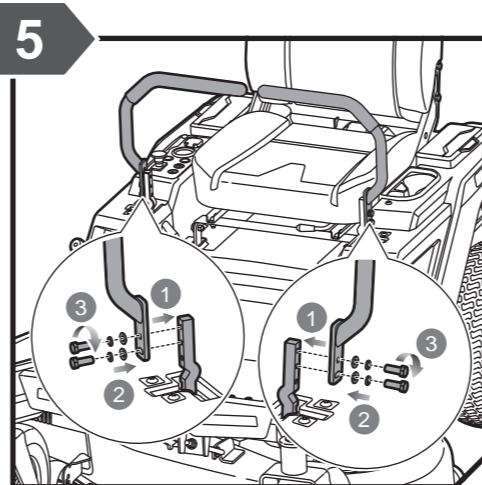
Push the two tabs on each side of the cable cover, and remove the cover. Connect the battery cables. Snap the cover in place.

GETTING STARTED

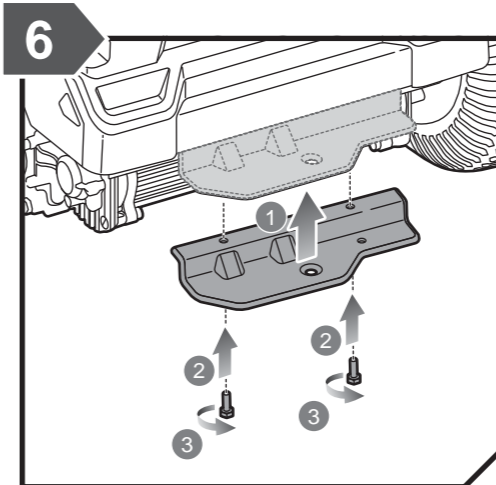


Install the seat, aligning the mounting holes to the mounting bracket on the mower. Install bolts and nuts on each side. Tighten the nuts to secure the seat. Connect the safety interlock system cable to the seat cable.

GETTING STARTED

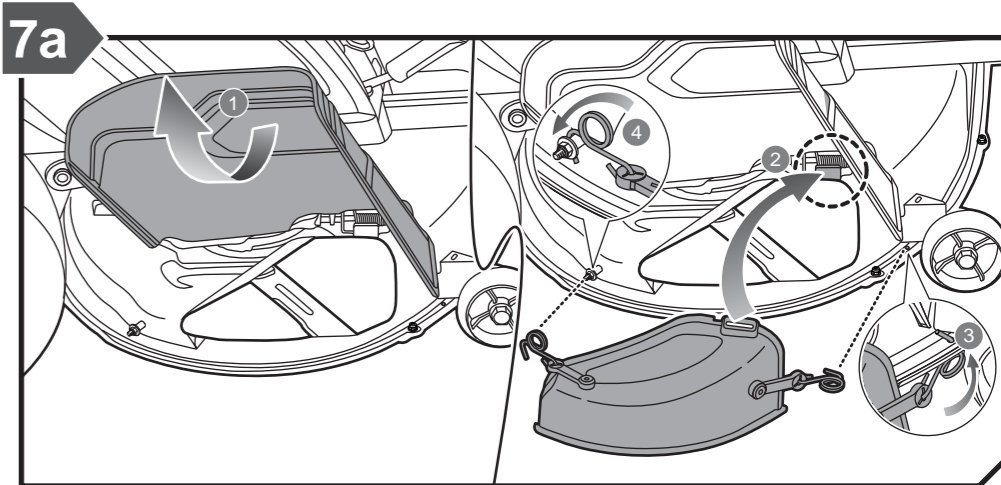


Install the drive levers on each side, aligning the mounting holes to the mounting bracket in the preferred height. Install washers and bolts. Tighten the bolts. **NOTE:** Ensure that the drive levers are installed at the same height and angle.

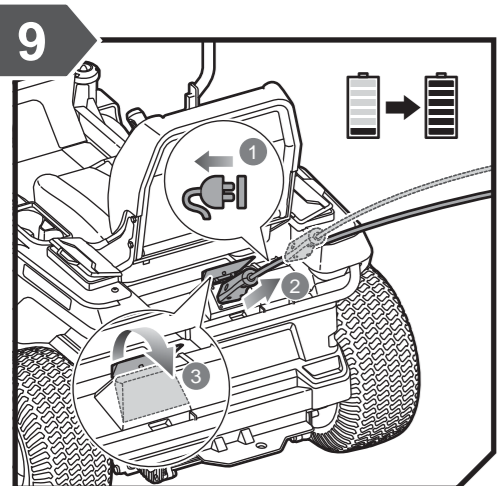


Position the hitch plate at the rear side of the mower. Install and tighten the bolts.

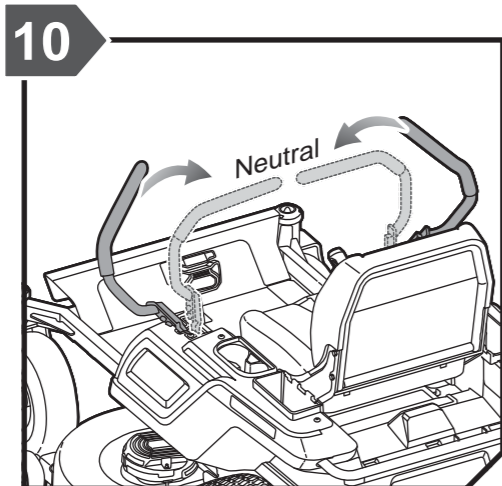
GETTING STARTED



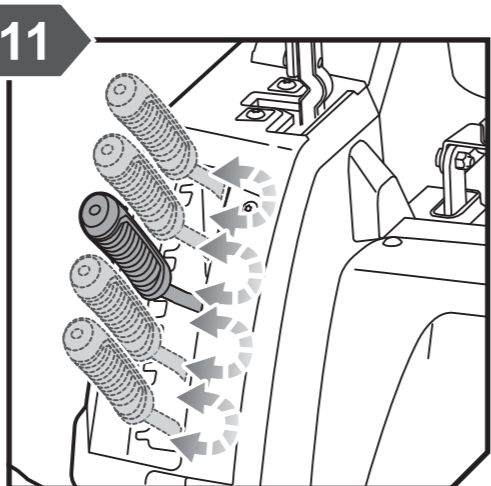
For mulching configuration, install the mulch cover. Lift the side discharge chute. Hook the mulch cover to the tab on the mower housing. Hook the right latch to the hole on the housing. Hook the left latch to the stud on the housing. Lower down the side discharge chute.



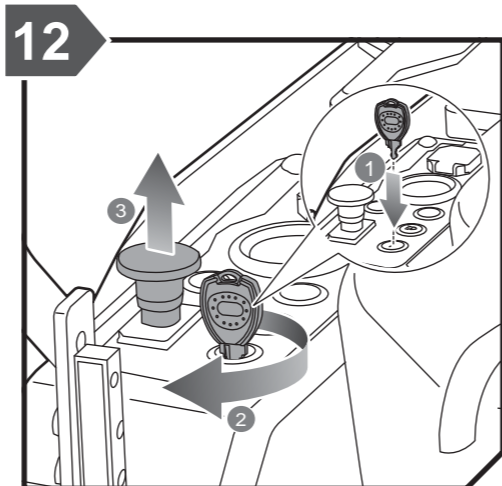
When the mower batteries are full, disconnect the charger cable, and close the cover. Disconnect the charger from the outlet.



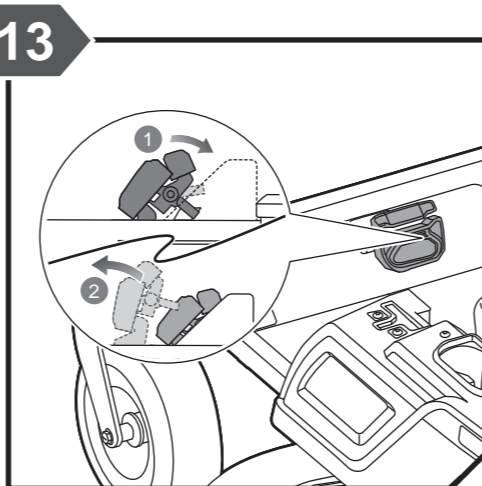
Set the drive levers to the open position, ride the mower, and set the drive levers to the neutral position.



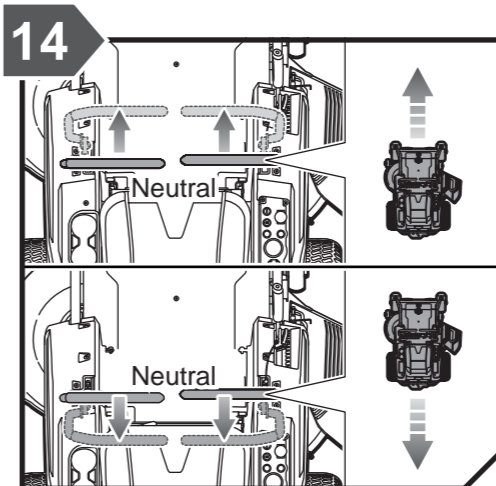
Set the cutting deck to the preferred cutting height. **WARNING:** Before driving the mower to the mowing location or driving over gravelly surfaces, set the cutting deck to the maximum height.



Insert the start key, and turn the key to the ON position. Pull up the blade engage knob to activate the blades.

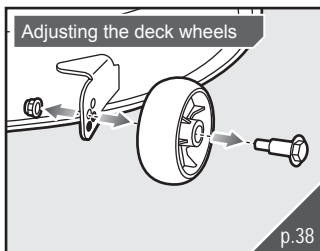
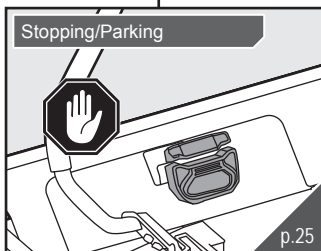
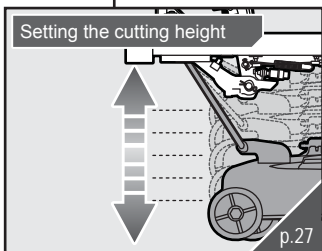
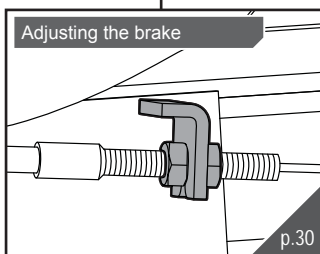
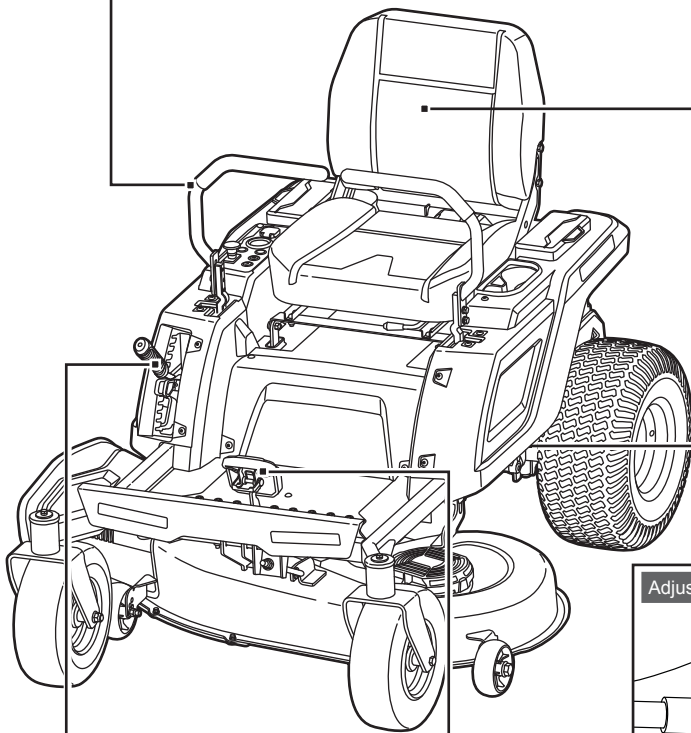
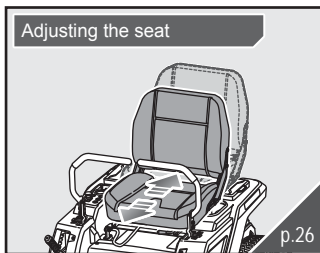
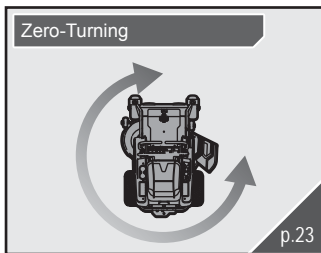
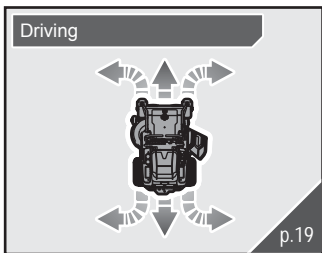


Step on the brake pedal to disengage the parking brake.

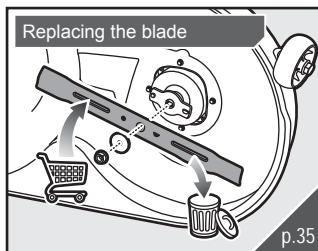
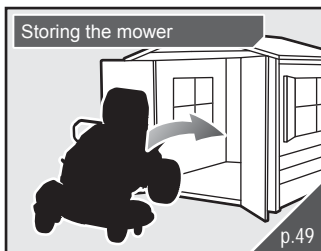
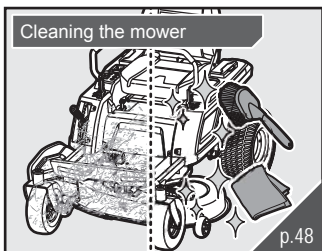
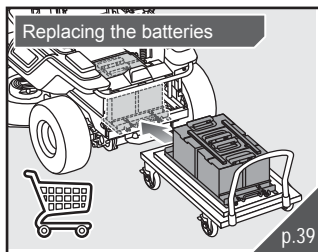
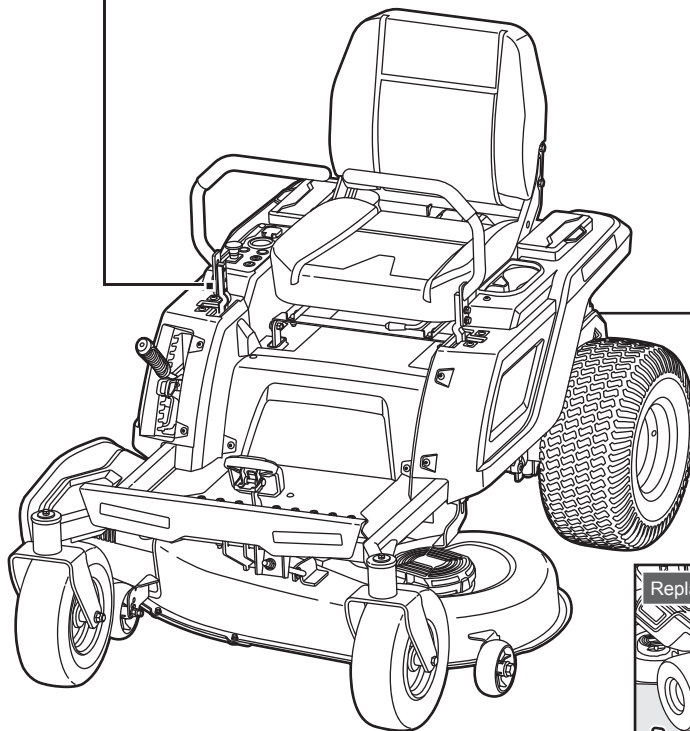
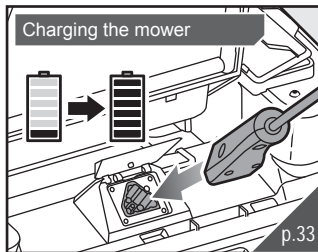
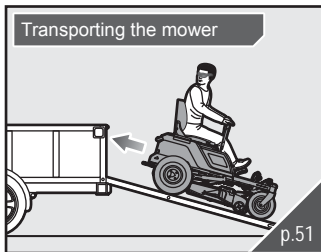
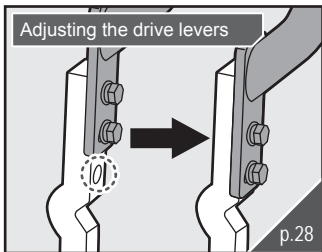


Drive the mower using the drive levers.

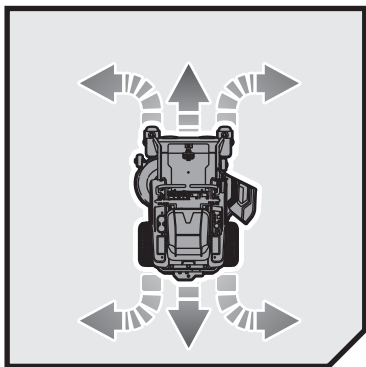
OVERVIEW



OVERVIEW



OPERATION

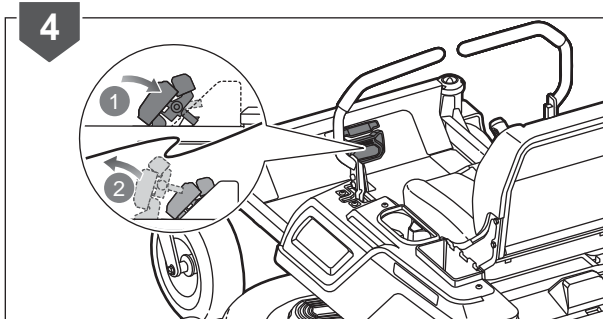
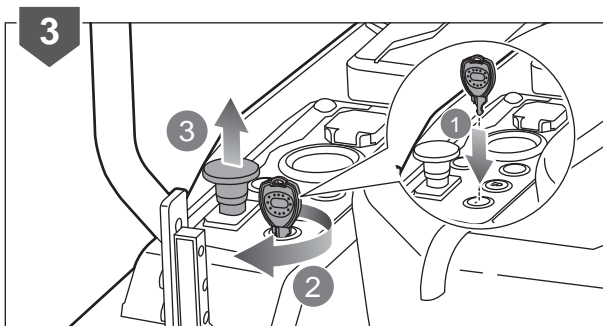
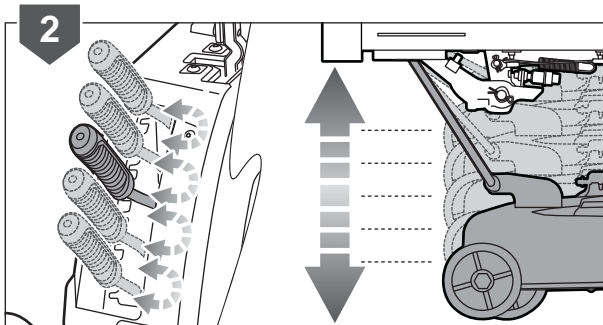
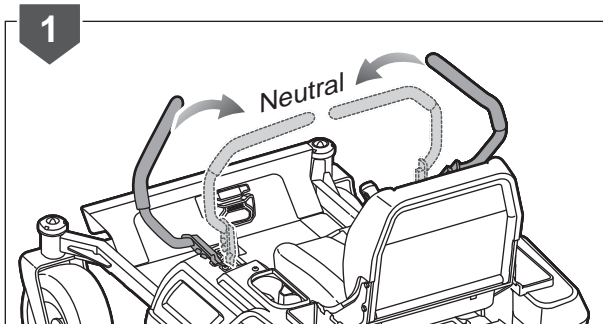


DRIVING THE MOWER

1. Ride the mower, and set the drive levers to the neutral position.
2. Set the cutting deck to the preferred cutting height.

WARNING: Before driving the mower to the mowing location or driving over gravelly surfaces, set the cutting deck to the maximum height.

3. Insert the start key, and turn the key to the ON position. Pull up the blade engage knob to activate the blades. If necessary, press the low speed drive button to limit the speed of the mower.
4. Step on the brake pedal to disengage the parking brake.



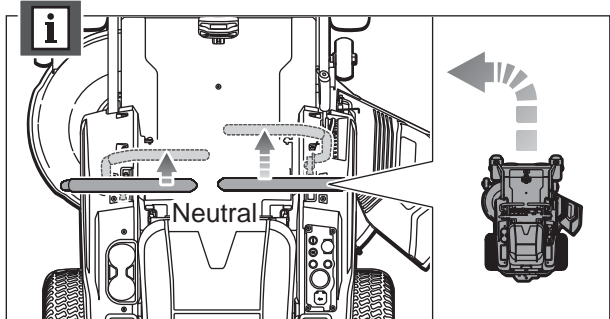
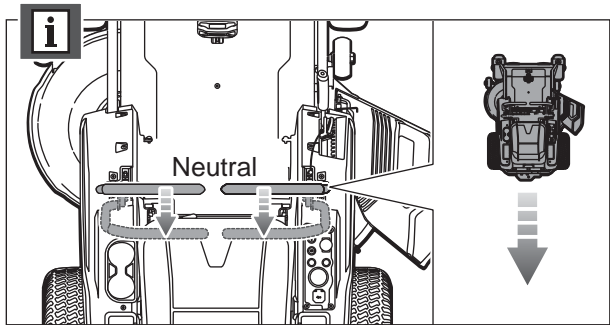
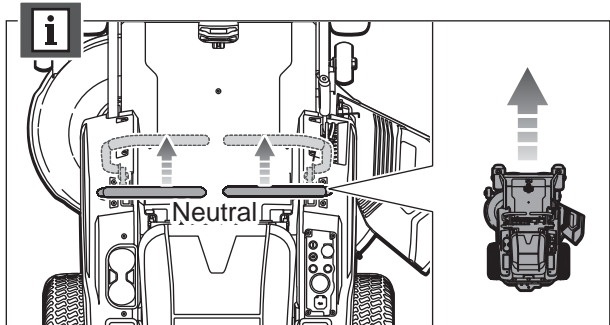
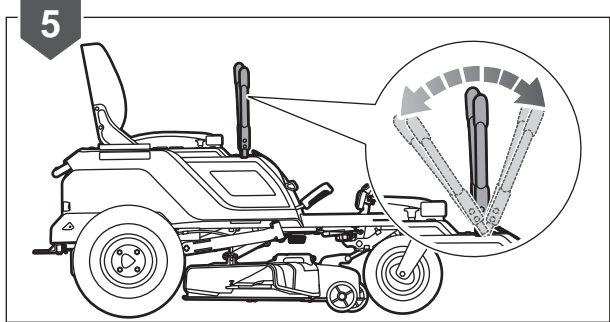
OPERATION

5. Drive the mower using the drive levers.

NOTE: Push the drive levers forwards to move the mower forward in a straight line. Pushing the drive levers farther forwards moves the mower faster. To slow down, gradually move the drive levers towards the neutral position.

NOTE: Pull the drive levers backwards from the neutral position to move the mower in reverse in a straight line. Pulling the levers farther back moves the mower faster. To slow down, gradually move the drive levers towards the neutral position.

NOTE: Push the right drive lever farther forwards than the left drive lever to perform a forward left turn.



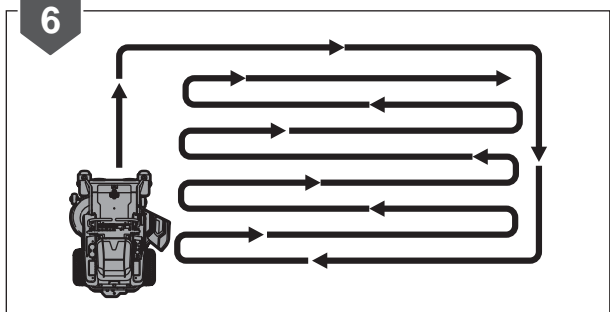
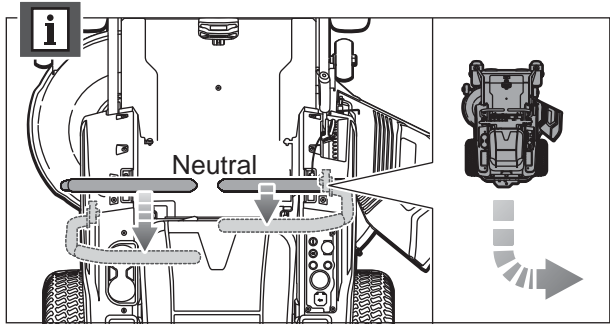
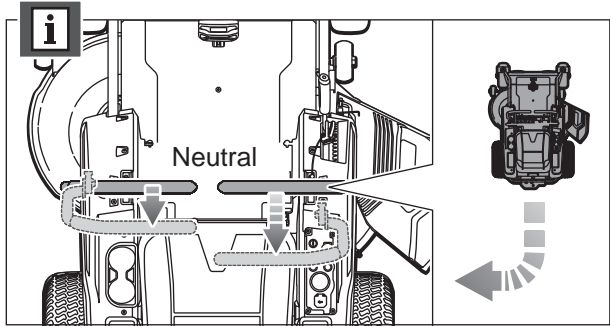
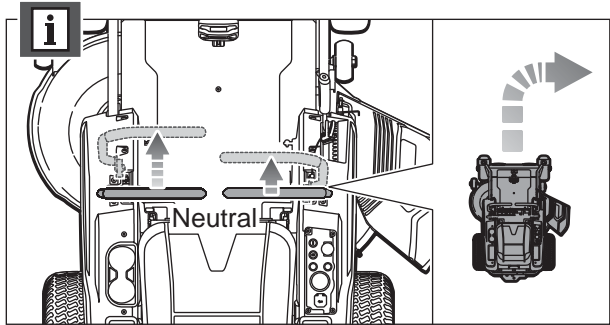
OPERATION

NOTE: Push the left drive lever farther forwards than the right drive lever to perform a forward right turn.

NOTE: Pull the right drive lever farther back than the left drive lever to perform a reverse left turn.

NOTE: Pull the left drive lever farther back than the right drive lever to perform a reverse right turn.

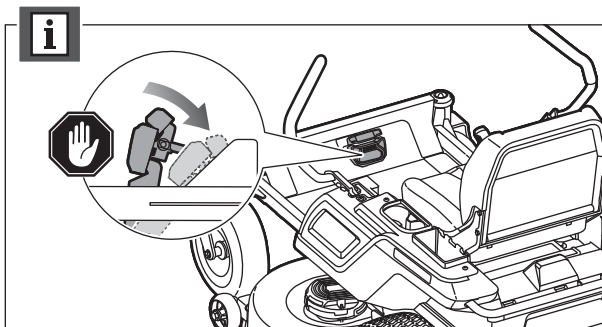
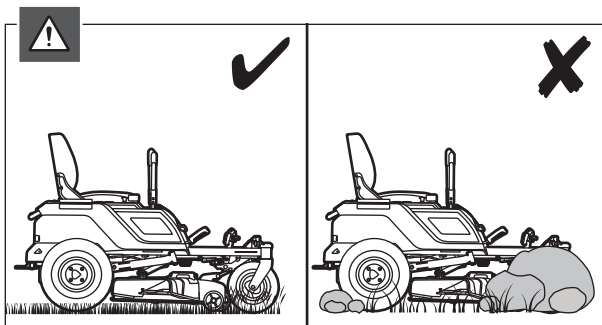
6. Start mowing the lawn by turning to the right so that the clippings discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow back and forth across the lawn, turning around the edges of the already mowed grass.



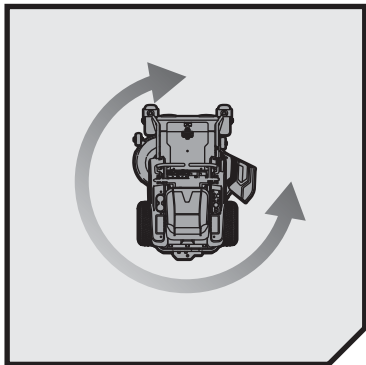
OPERATION

WARNING: Make sure that the lawn is clear of stones, sticks, wires, toys, tree nuts, tree branches, and other objects that could damage the 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 product in any direction and cause serious personal injury to the operator and others.

NOTE: Step on the brake pedal to stop the mower.



OPERATION

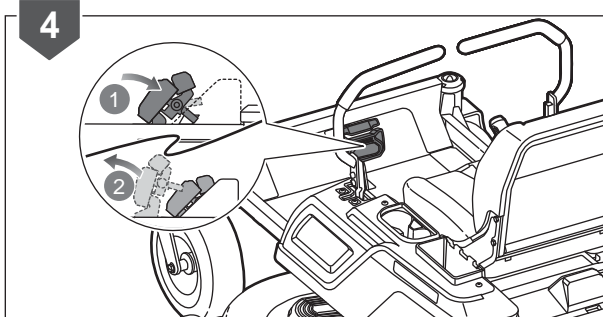
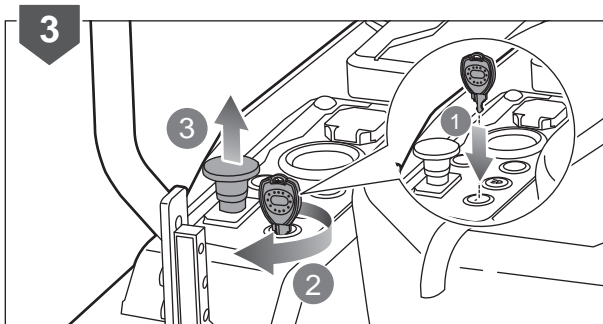
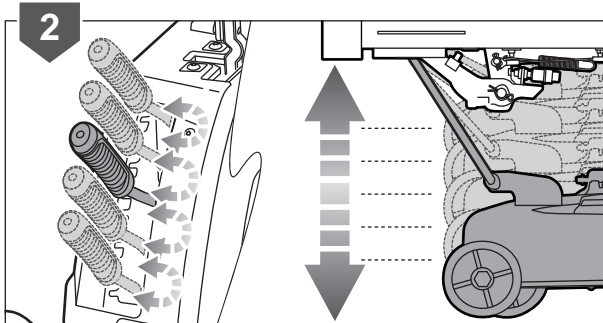
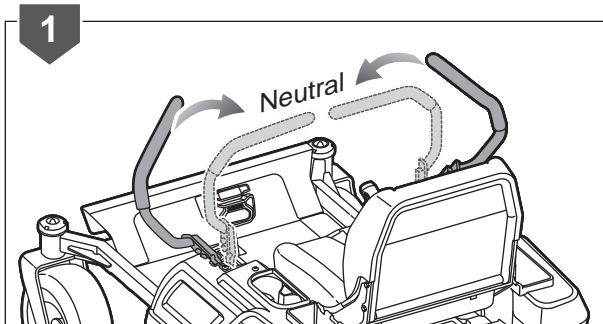


ZERO-TURNING

1. Ride the mower, and set the drive levers to the neutral position.
2. Set the cutting deck to the preferred cutting height.

WARNING: Before driving the mower to the mowing location or driving over gravelly surfaces, set the cutting deck to the maximum height.

3. Insert the start key, and turn the key to the ON position. Pull up the blade engage knob to activate the blades. If necessary, press the low speed drive button to limit the speed of the mower.
4. Step on the brake pedal to disengage the parking brake.

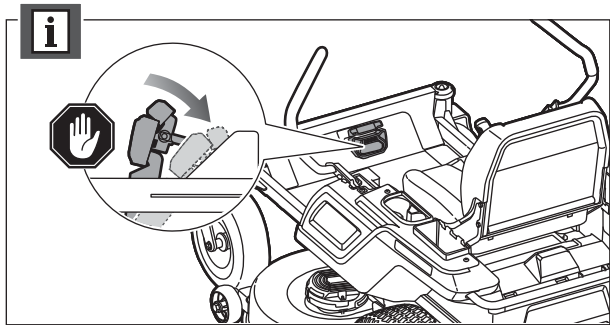
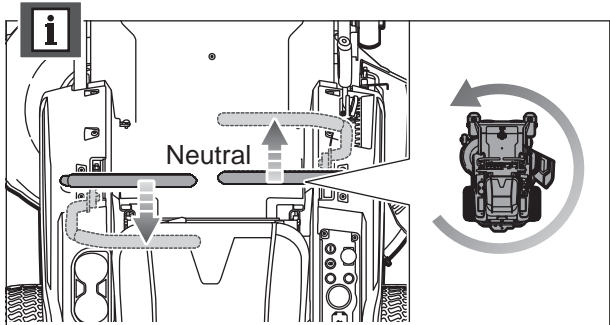
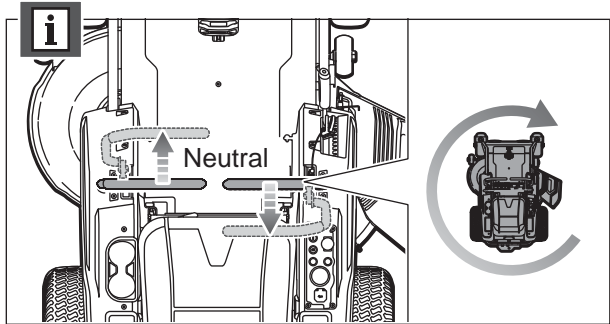


OPERATION

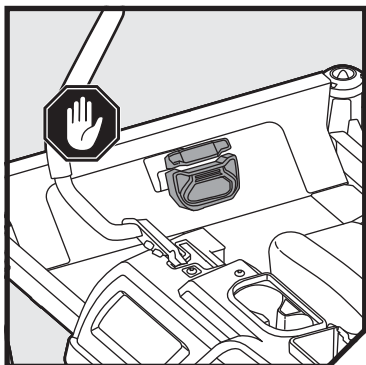
NOTE: To perform a right zero-turn, reduce speed, and simultaneously push the right drive lever forwards in front of the neutral position and pull the left drive lever backwards behind the neutral position.

NOTE: To perform a left zero-turn, slow down, and simultaneously push the left drive lever forwards in front of the neutral position and pull the right drive lever backwards behind the neutral position.

NOTE: Step on the brake pedal to stop the mower.



OPERATION



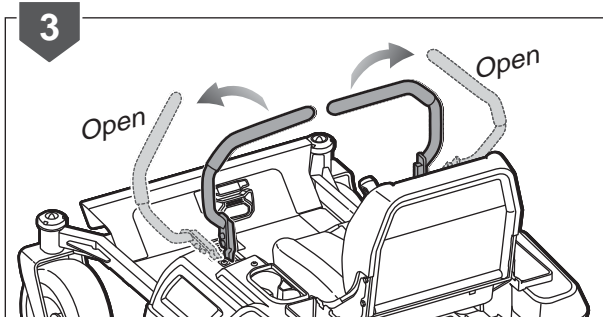
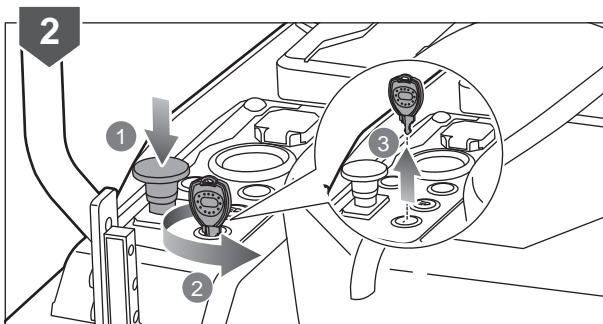
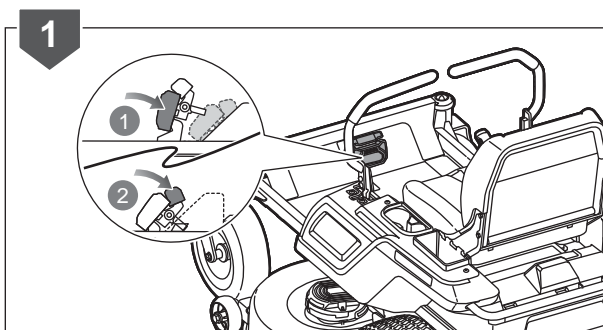
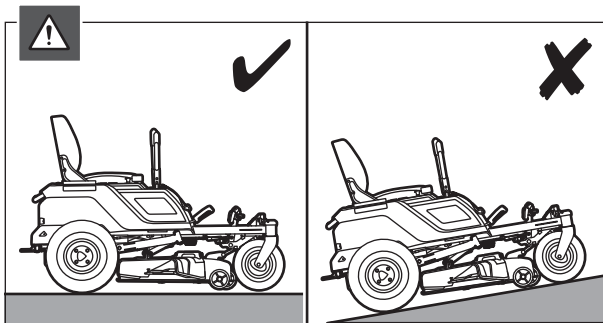
STOPPING/PARKING

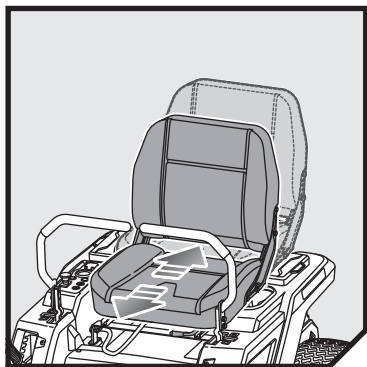
WARNING: Park the mower only on a level surface. Do not park the mower on slopes.

1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.

NOTE: Always remove the start key when leaving the mower unattended, even if for just a brief period.

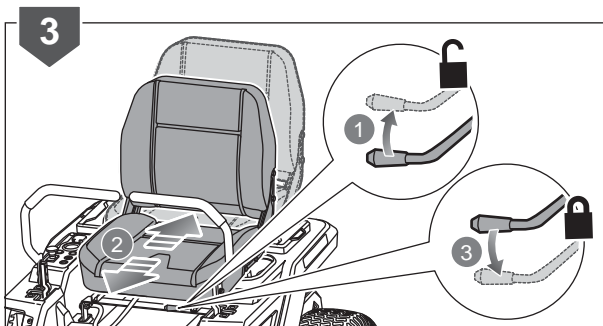
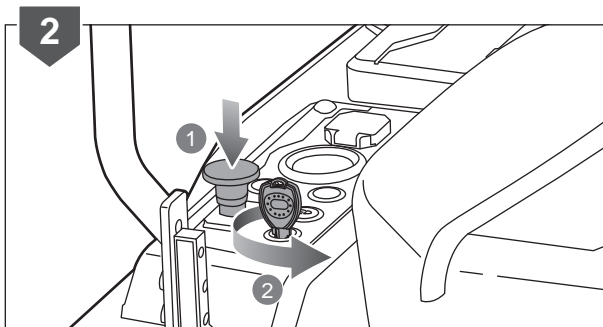
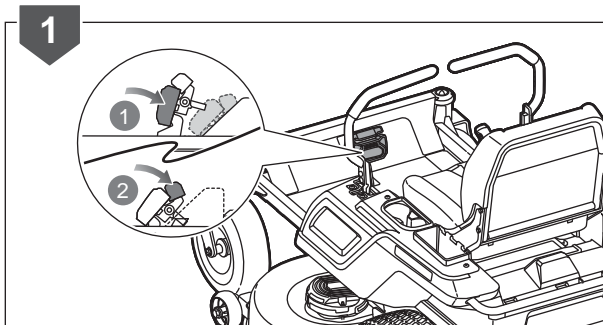
3. Move the drive levers to the open position, and exit from the mower.



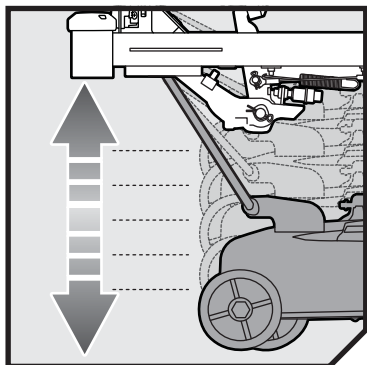


ADJUSTING THE SEAT

1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the key to the OFF position.
3. Lift up the seat adjustment lever. While holding the lever, slide the seat forwards or backwards to the preferred position. Release the lever, and make sure that the seat is locked in position before operating the mower.



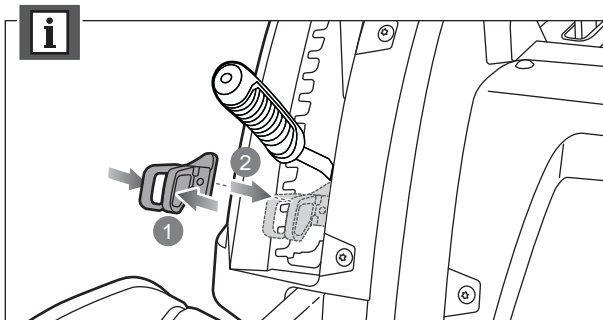
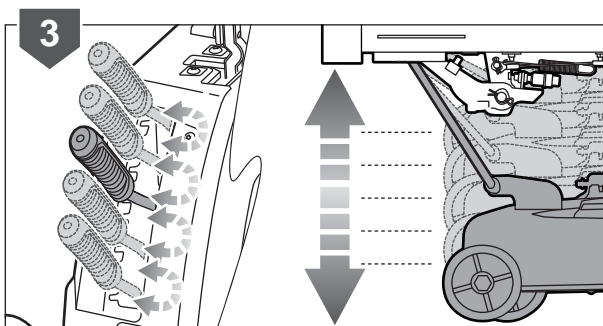
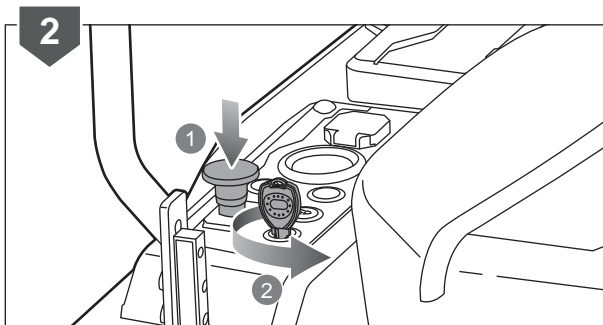
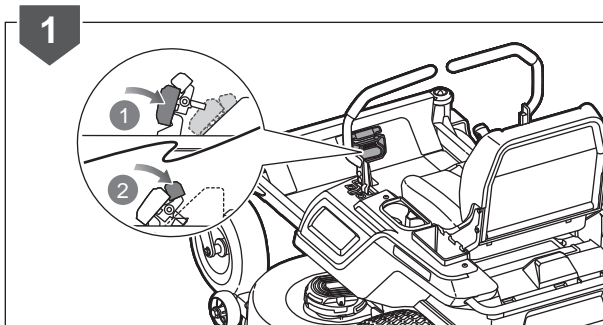
OPERATION

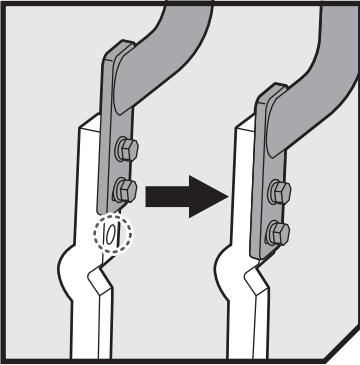


SETTING THE CUTTING HEIGHT

1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position.
3. Set the cutting deck to the preferred cutting height.

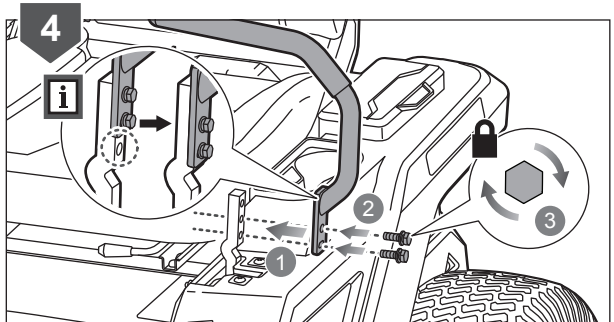
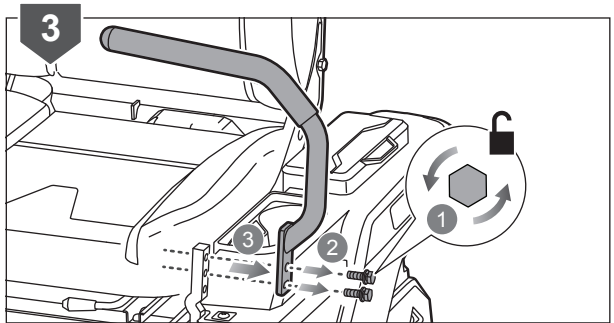
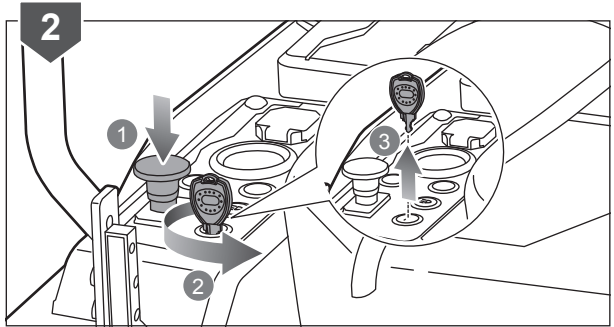
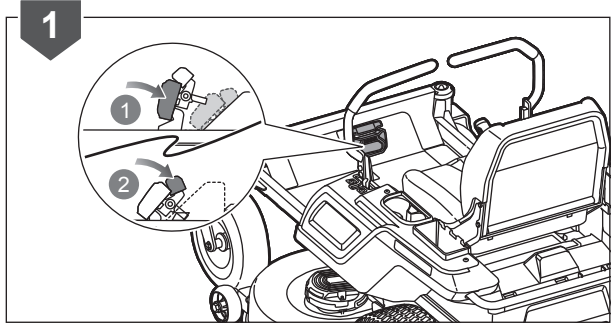
NOTE: The auto-stop plug (included) stops the lever to the preferred cutting height. After the correct height is set, insert the auto-stop plug below the lever.





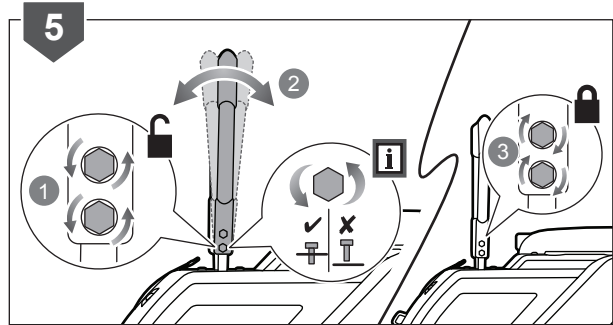
ADJUSTING THE DRIVE LEVERS

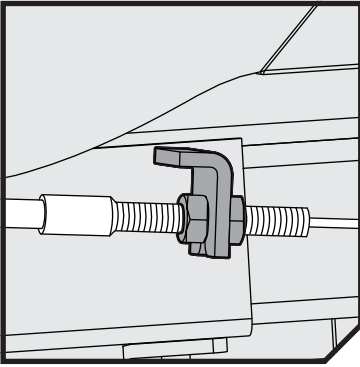
1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.
3. Remove the bolts and drive lever.
4. Install the drive levers on each side, aligning the mounting holes to the mounting bracket in the preferred height. Install the bolts and tighten.



MAINTENANCE

5. Loosen the drive lever bolts. Rotate the drive levers to the preferred angle. Tighten the bolts to secure the drive levers.

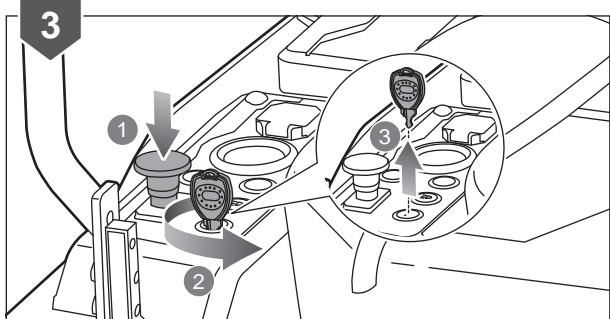
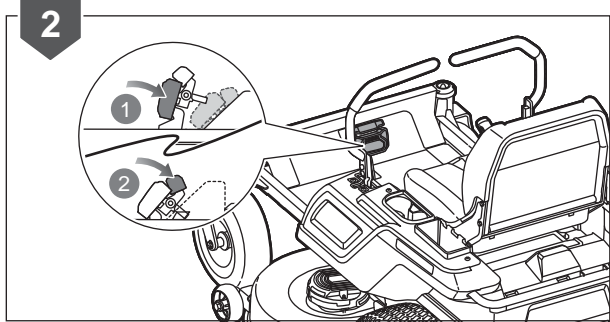
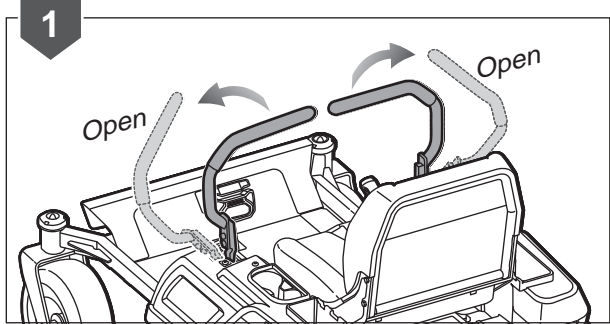
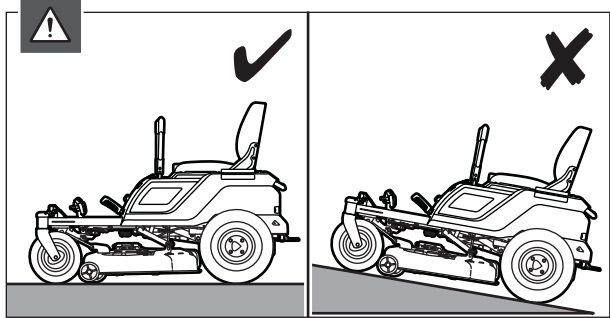




ADJUSTING THE BRAKE

WARNING: Park the mower only on a level surface. Do not park the mower on slopes.

1. Set the drive levers to the open position.
2. Step on the brake pedal, and engage the parking brake.
3. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.



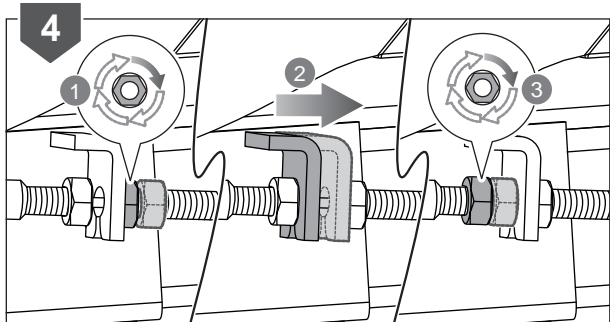
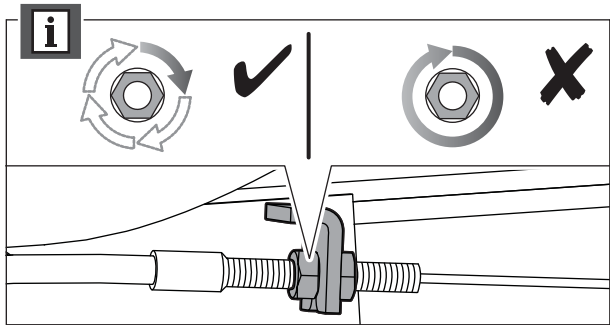
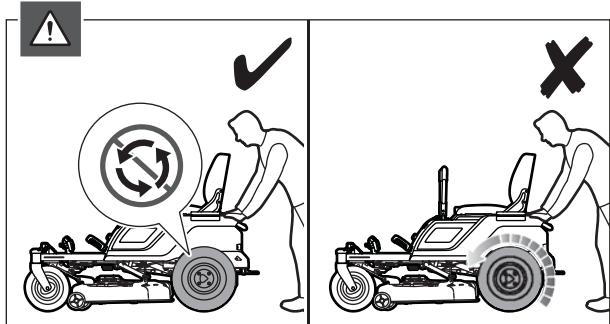
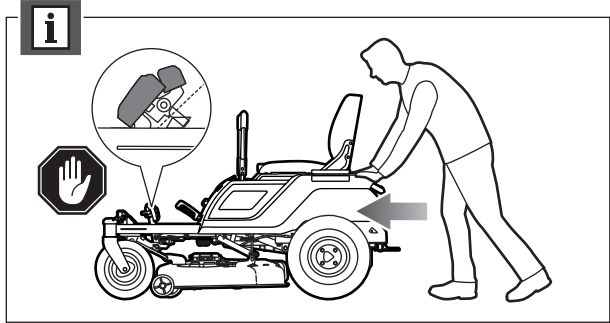
MAINTENANCE

NOTE: Stand behind the mower, and push the mower forward to test if the brakes need adjustment.

WARNING: If the rear tires turn, the brakes need to be tightened.

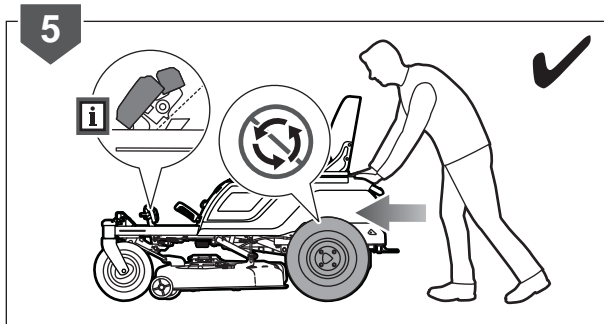
NOTE: Tighten the brakes by turning the adjustment nuts 1/4 turn at a time. Do not fully turn the adjustment nuts.

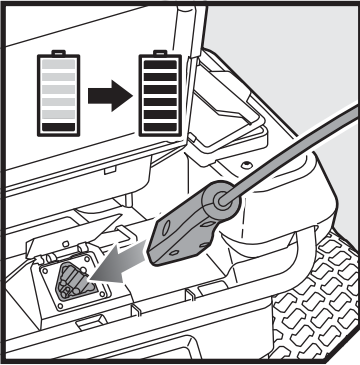
4. Locate the brake adjustment nuts along the frame in front of each rear wheel. Turn each adjustment nut 1/4 turn clockwise to tighten the brakes, then try to push the mower.



MAINTENANCE

5. Continue to tighten the brakes until the mower no longer moves when pushed.



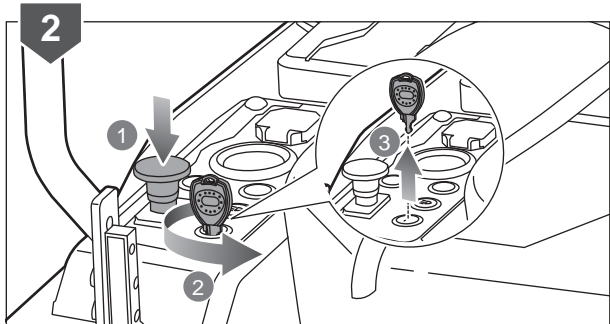
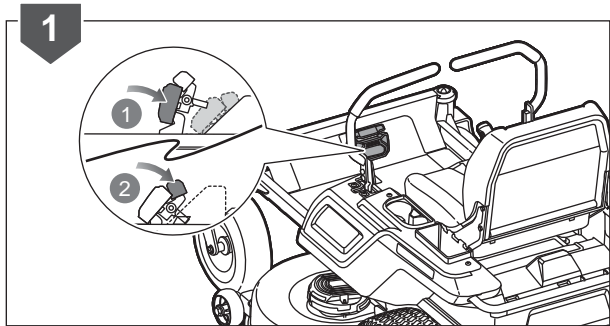
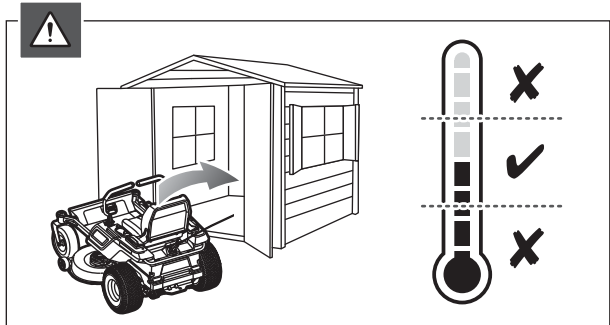
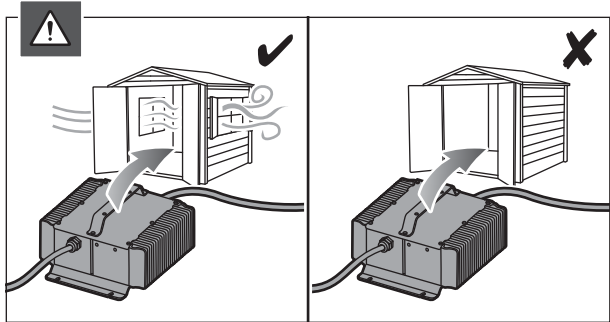


CHARGING THE MOWER

WARNING: Mount or place the charger in an area with adequate ventilation. Make sure that the cooling fins are not covered.

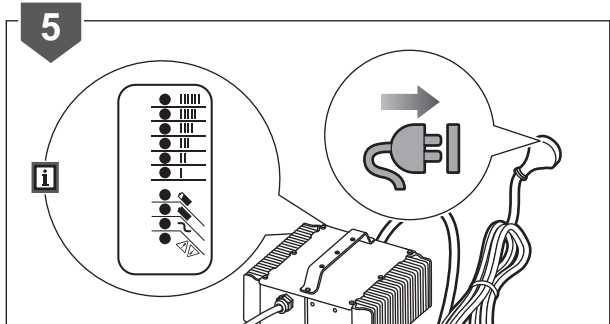
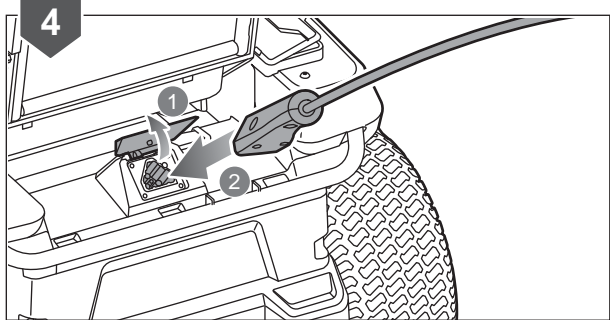
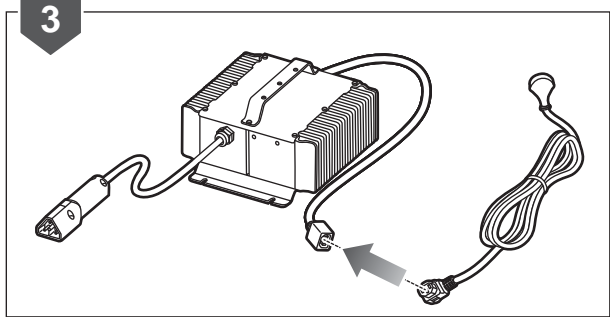
WARNING: Charge the product in normal conditions. Do not charge the product in extreme hot or cold environments.

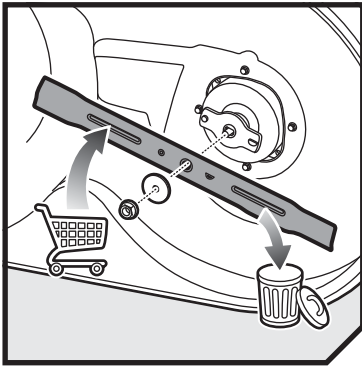
1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.



MAINTENANCE

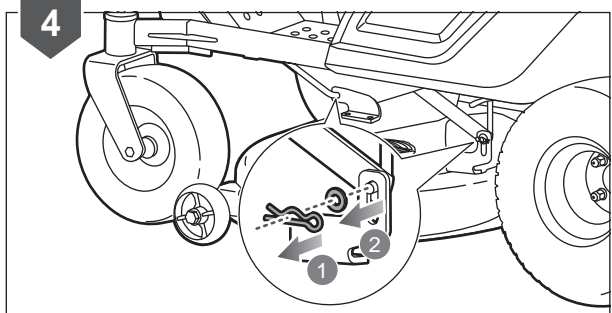
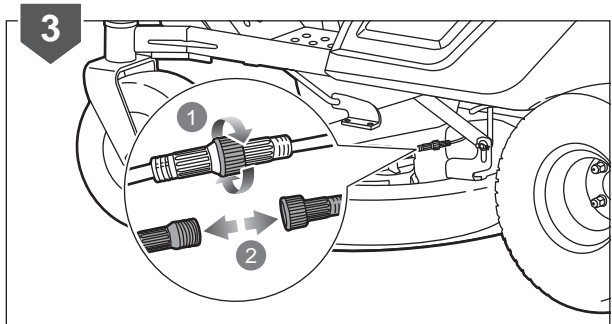
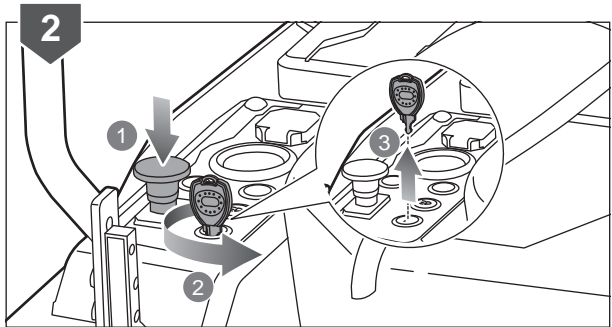
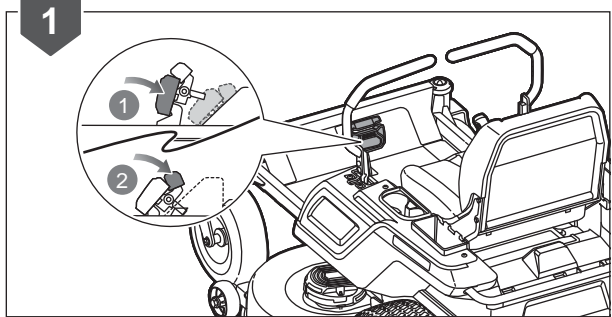
3. Connect the power cord to the charger.
4. Lift the charging port cover, and connect the charger cable to the charging port.
5. Connect the power cord to an AC outlet. When powered and connected to the charger, the charger LED indicators illuminate to indicate the charger's status. Refer to the "Charger LED indicator" section to determine the meaning of the LED's display.





REPLACING THE BLADE

1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.
3. Loosen the cable lock, and disconnect the cables.
4. On each side of the cutting deck, remove the two hitch pins and washers securing the cutting deck to the mower.

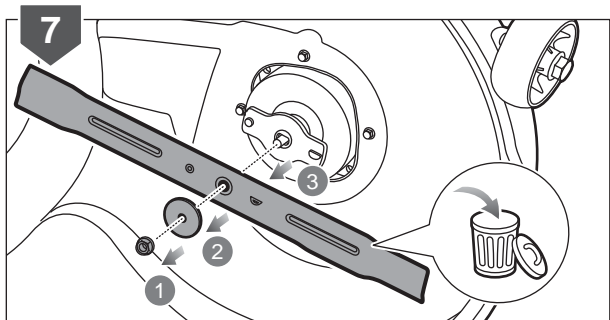
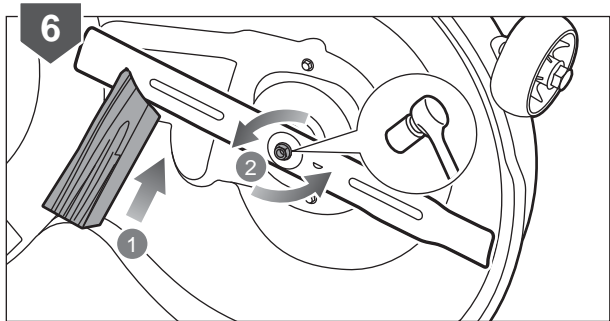
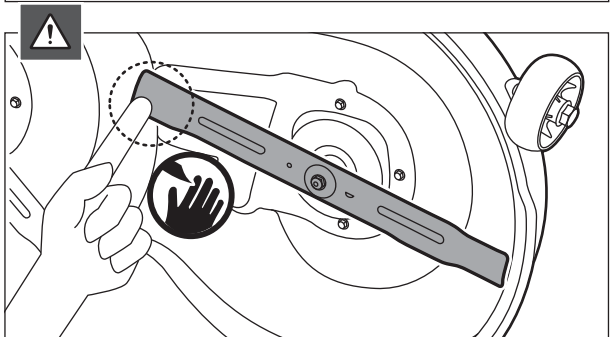
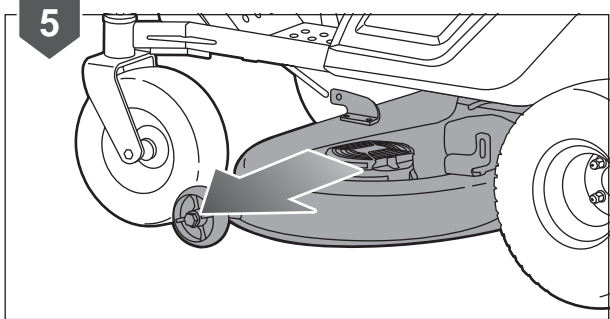


MAINTENANCE

- Slide the cutting deck out of the mower, and turn the deck upside down.

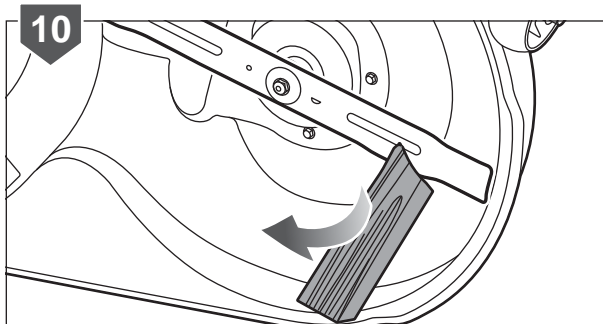
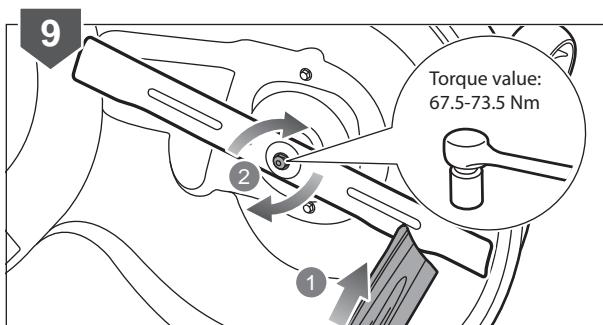
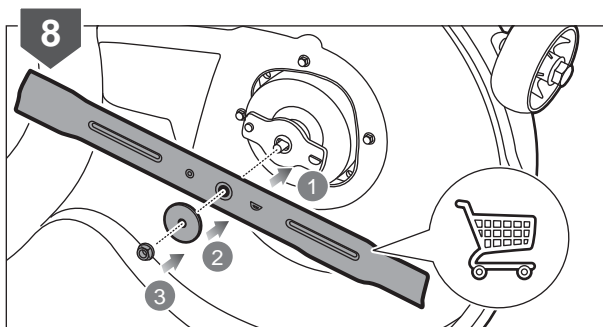
WARNING: Keep bare hands and feet away from the blades. Wear non-slip, heavy-duty gloves when handling the blades.

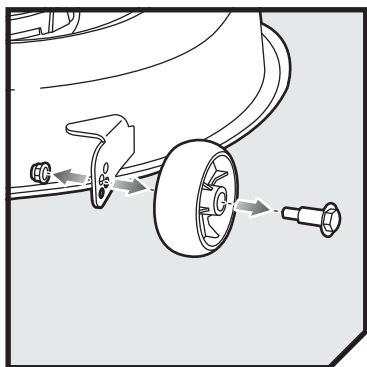
- Insert a wood chock between the blade and cutting deck to prevent the blade from turning. Loosen the nut.
- Remove the nut, spring washer, and blade.



MAINTENANCE

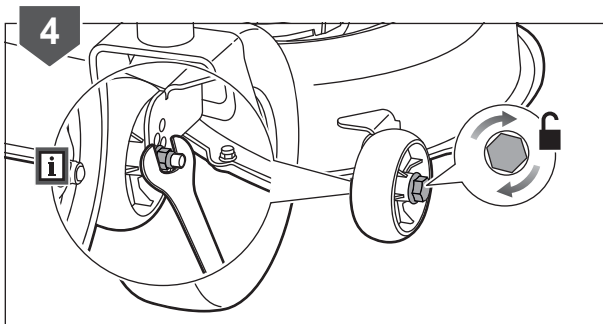
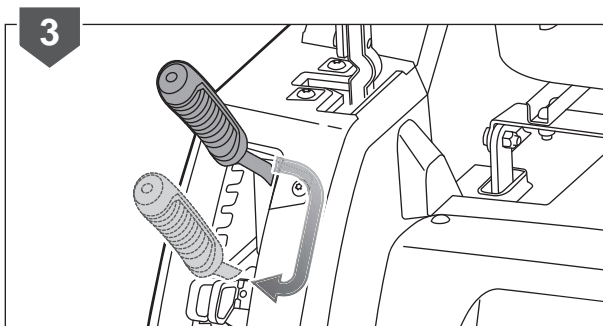
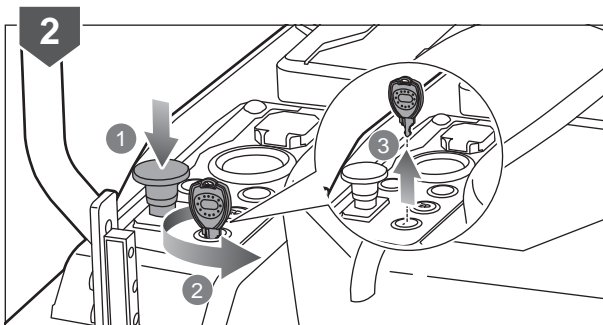
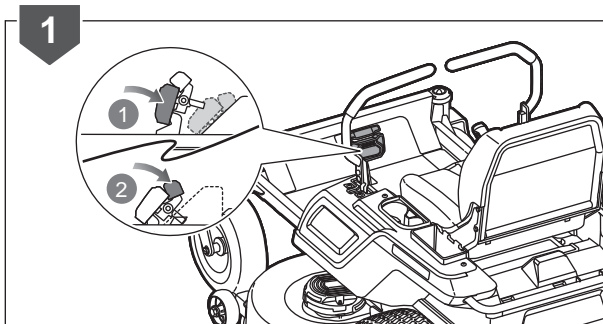
8. Install the new blade, spring washer, and nut.
9. Insert a wood chock between the blade and cutting deck to prevent the blade from turning. Tighten the nut to 67.5–73.4 Nm of torque.
10. Remove the wood chock.





ADJUSTING THE CUTTING DECK WHEELS

1. Stop and park the mower on a level surface.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.
3. Set the cutting deck to the lowest cutting height.
4. Hold the nut using a wrench on the rear side of the cutting deck wheel. Loosen the bolt on the front side of the wheel.

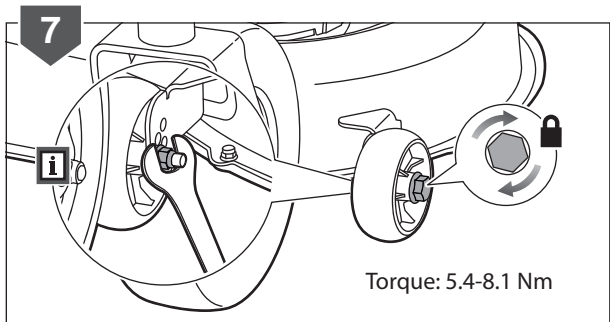
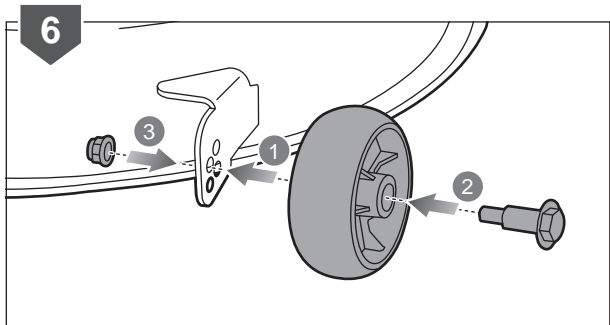
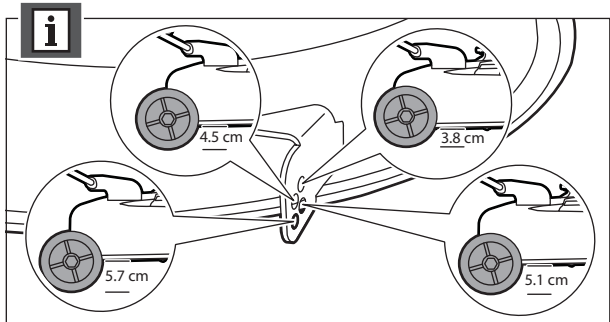
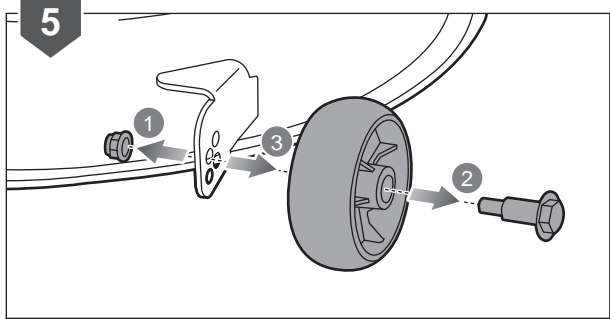


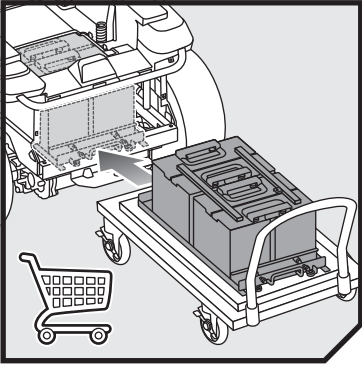
MAINTENANCE

5. Remove the nut, bolt, and wheel from the cutting deck.

NOTE: The cutting deck wheels should be positioned approximately 1.25 cm off the ground when the mower is at the lowest cutting height to minimise the chance of scalping the lawn. When shipped, the cutting deck wheels are set to the 3.8 cm position.

6. Install the wheel, bolt, and nut to the appropriate position.
7. Hold the nut using a wrench on the rear side of the wheel. Tighten the bolt to 5.4–8.1 Nm of torque on the front side of the wheel.

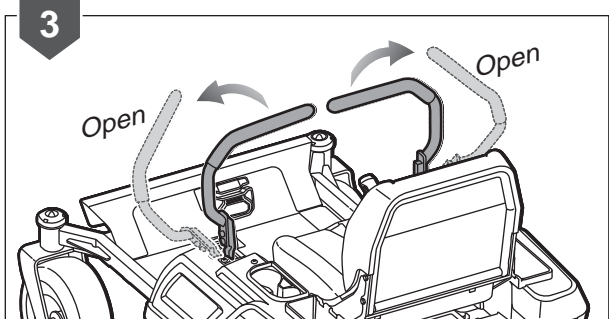
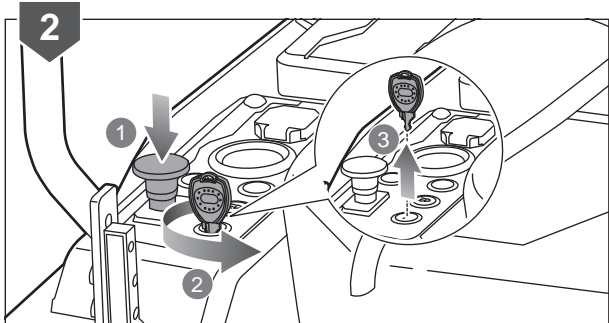
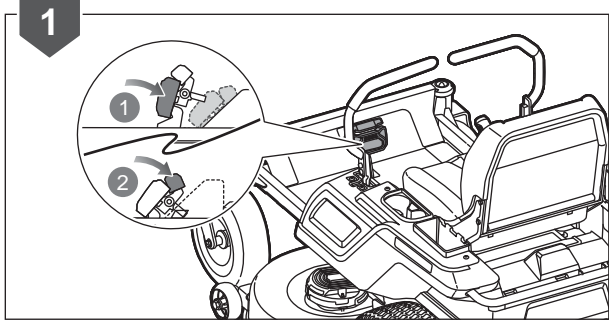
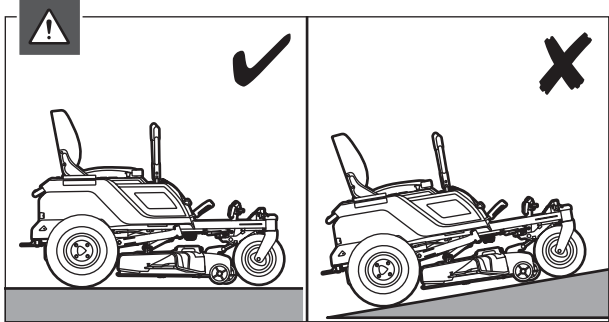




REPLACING THE BATTERIES

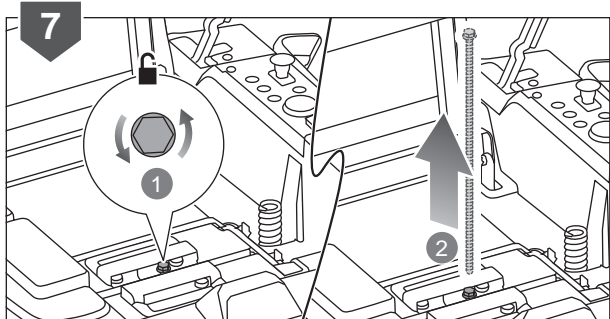
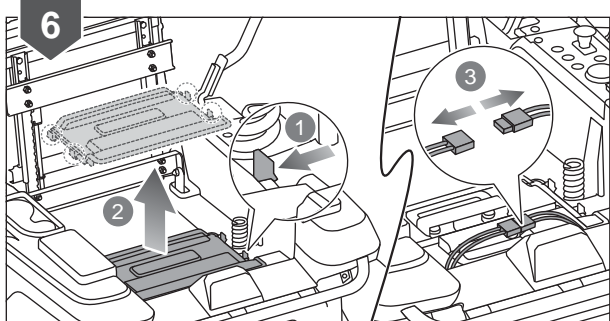
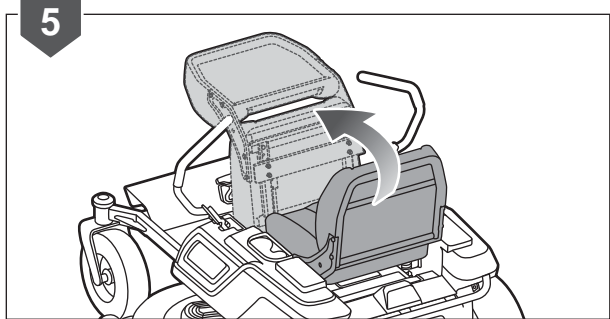
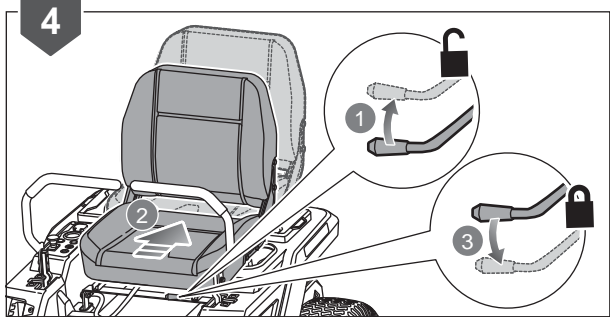
WARNING: Park the mower only on a level surface. Do not park the mower on slopes.

1. Step on the brake pedal, and engage the parking brake.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.
3. Set the drive levers to the open position.



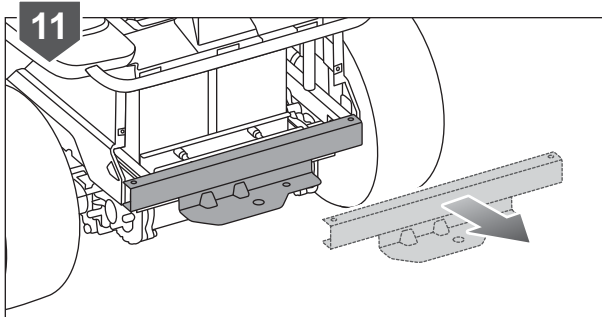
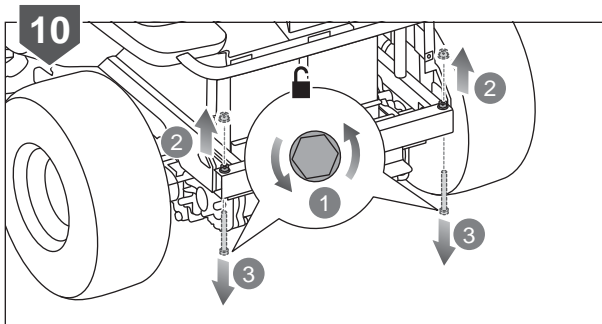
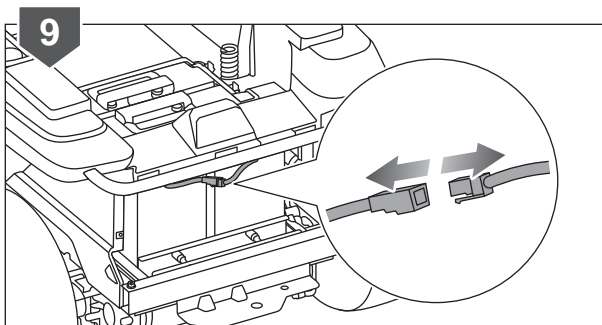
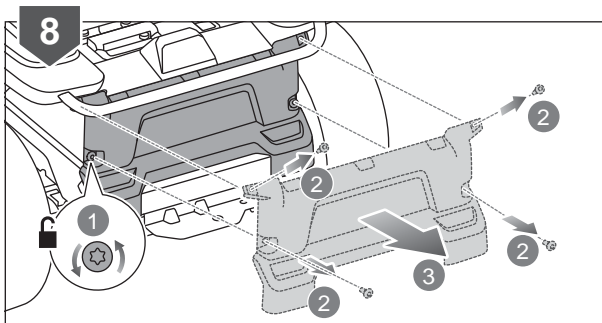
MAINTENANCE

4. Slide the seat to the rearmost position.
5. Tip over the seat forwards.
6. Push the two tabs on each side of the cable cover, and remove the cover. Disconnect the battery cables.
7. Remove the long bolt that secures the battery tray in place.



MAINTENANCE

8. Remove the four screws that secure the battery compartment cover, and remove the cover.
9. Disconnect the battery thermistor.
10. Remove the nuts and bolts that secure the rear metal subframe.
11. Remove the subframe.



MAINTENANCE

12. Remove the bolt, lock washer, flat washer, and spacer that secure each battery tray tab.
13. Position a table cart that can support a minimum weight of 136 kg next to the battery exit. Pull out the battery tray, resting the tray on the cart.

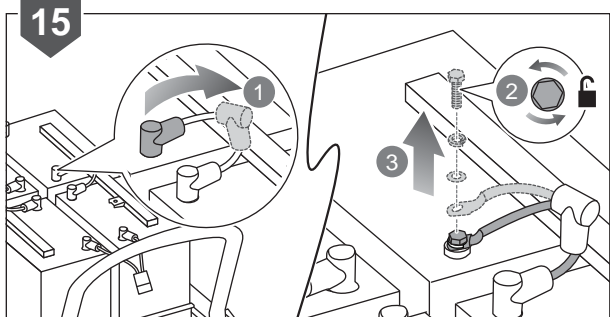
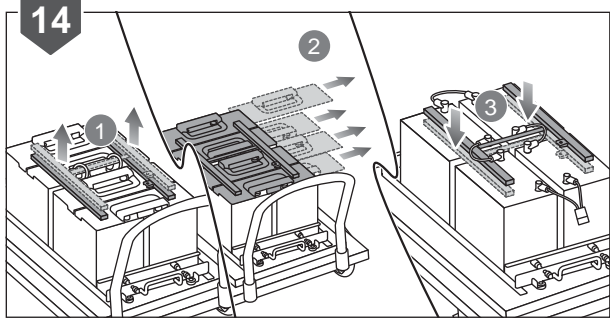
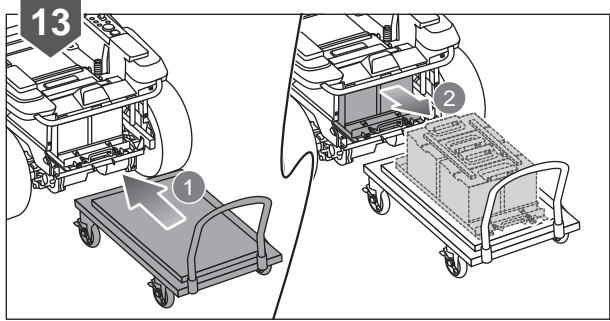
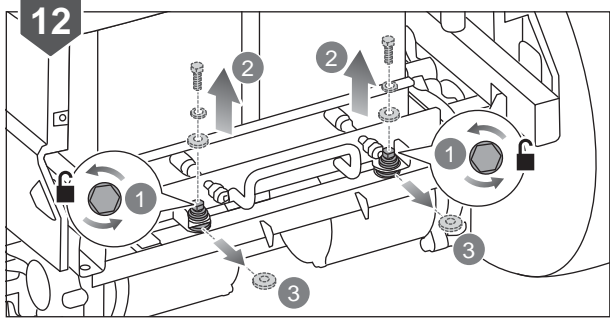
WARNING: The battery tray is very heavy and may require two people to pull out. We recommend the use of a hydraulic table type cart (or similar device) to support the tray. Failure to properly pull out and support the battery tray could result in serious personal injury, as well as damage to the mower.

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 reduces the risk of serious personal injury.

14. Slightly lift the securing brackets, and remove the battery covers.
15. Remove the battery cables, disconnecting first the negative (black) terminal, then the positive (red) terminal. Remove the terminal cap. Remove the bolt, lock washer, and flat washer that secure the cable terminal.

WARNING: Make sure not to short circuit the positive and negative terminals.

NOTE: When disconnecting the rear cables, take note of the position of the battery thermistor terminal on the positive post. Make sure to reinstall the terminal in the same location.



MAINTENANCE

16. Remove the battery securing brackets.

17. Replace the batteries.

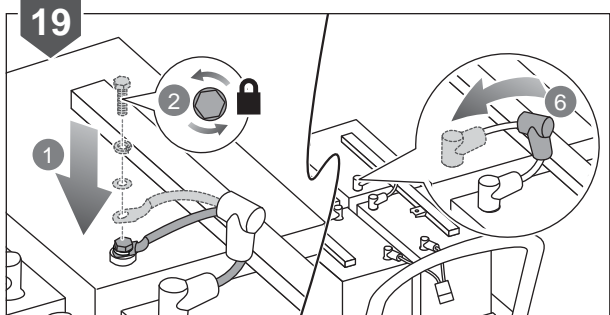
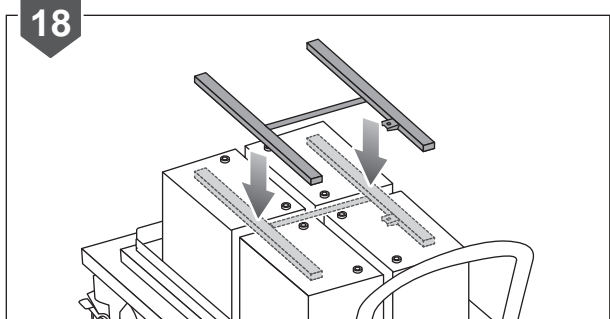
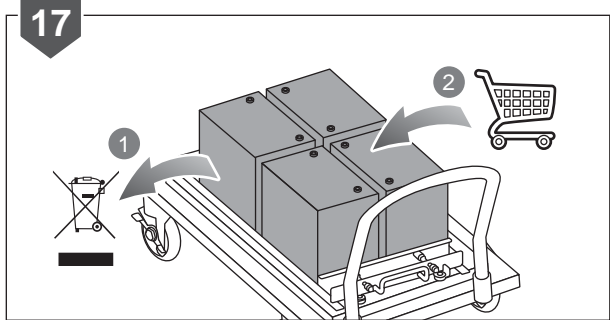
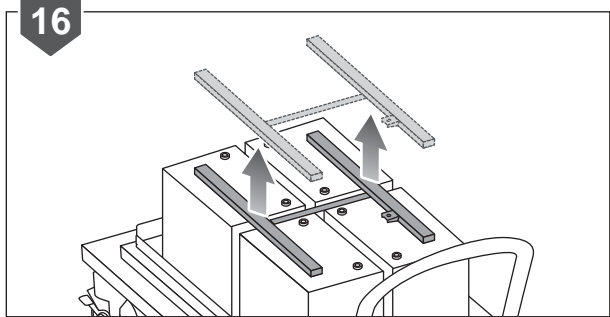
WARNING: Always follow the safety warnings provided with the battery. Dispose of old battery according to local and state regulations.

18. Install the battery securing brackets.

19. Connect the battery cables, connecting first the positive (red) terminal, then the negative (black) terminal.

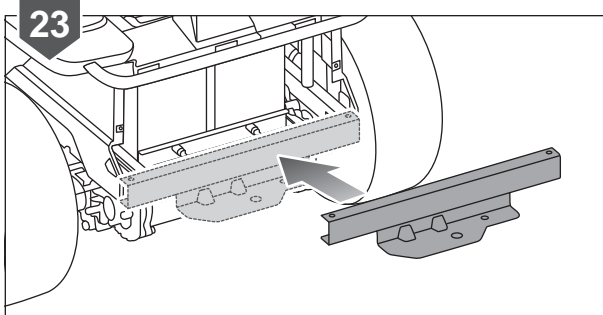
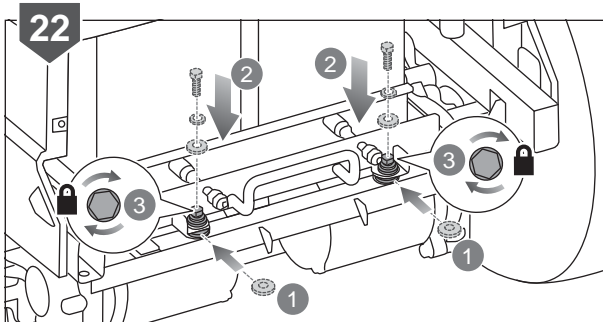
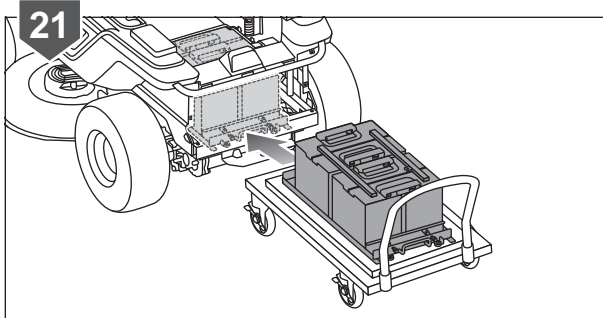
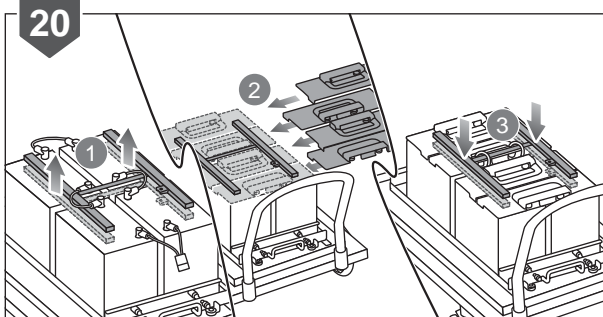
Secure the cable terminal with flat washers, lock washers, and bolt. Cover the terminal connection with the terminal cap.

WARNING: Make sure not to short circuit the positive and negative terminals.



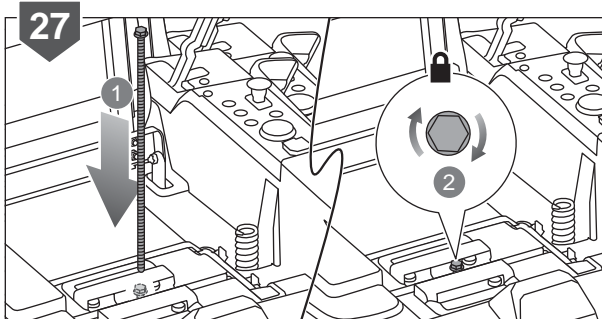
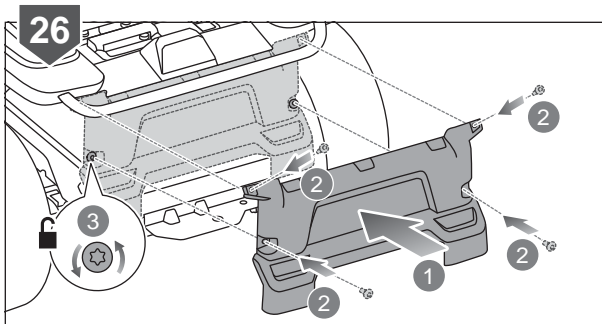
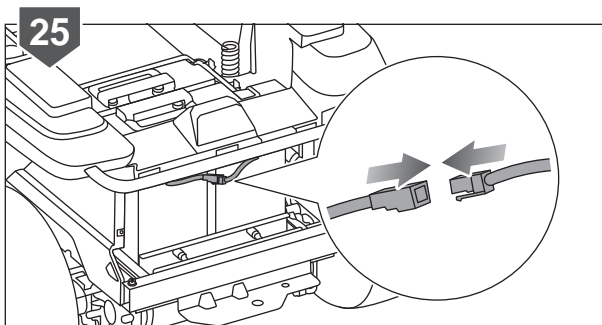
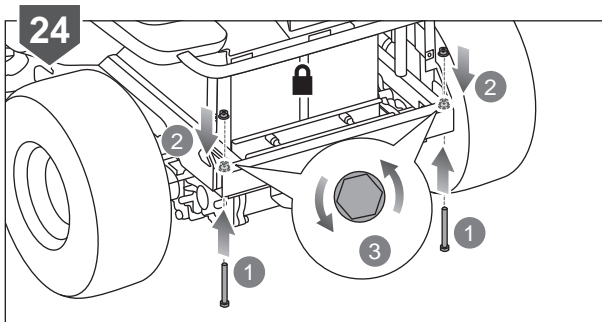
MAINTENANCE

20. Slightly lift the battery securing brackets, and install the battery covers.
21. Push the battery tray back into the mower.
22. Insert the spacer under each battery tray tab, and install the flat washer, lock washer, and bolt. Tighten the bolt to secure the battery tray tab.
23. Install the rear subframe on the mower.



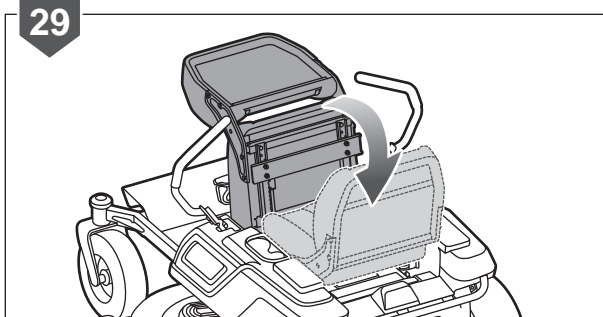
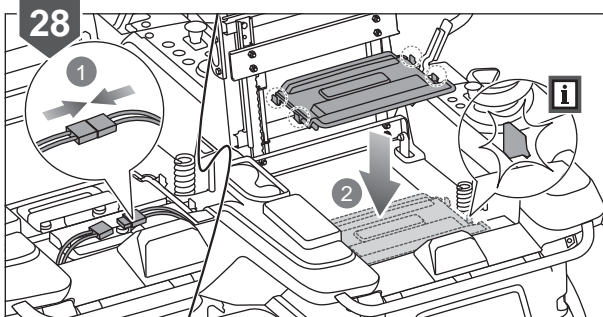
MAINTENANCE

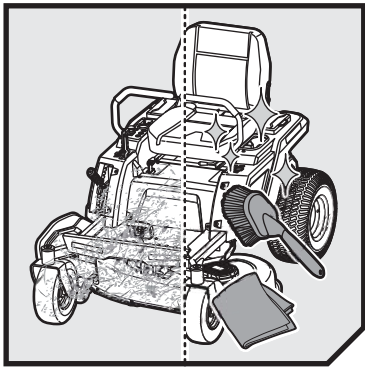
24. Install nuts and bolts on each side of the subframe, and tighten the bolts.
25. Connect the battery thermistor.
26. Install the battery compartment cover. Install and tighten four bolts to secure the cover.
27. Install and tighten the long bolt to secure the battery tray.



MAINTENANCE

28. Connect the battery cables. Snap the cable cover in place.
29. Lower down the seat, and adjust the seat to the preferred position.

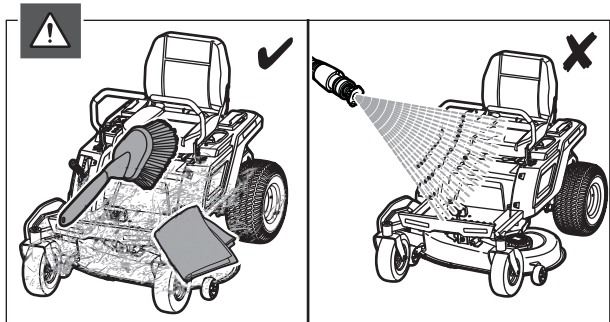
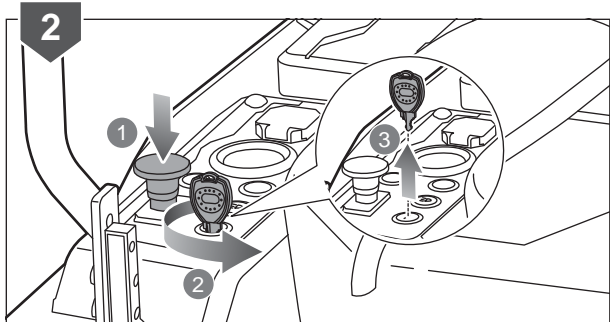
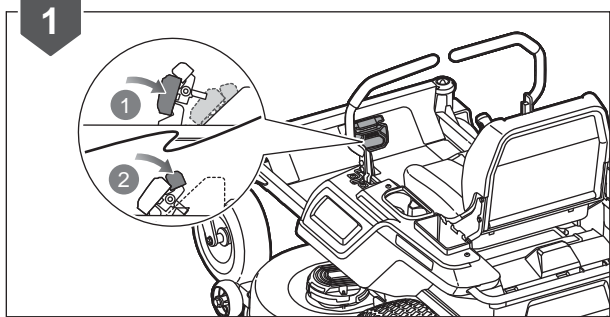


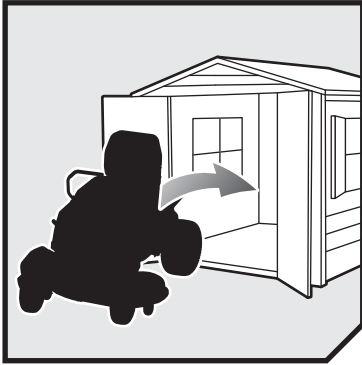


CLEANING THE MOWER

1. Stop and park the mower on a level surface.
2. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.

WARNING: Use a brush and dry cloth to clean the mower. Remove any build-up of grass and leaves on or around the motor cover. Do not spray the product with water.



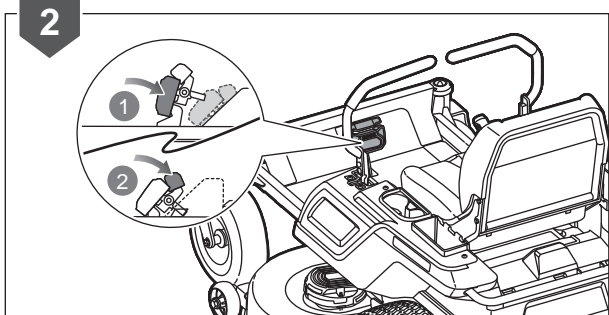
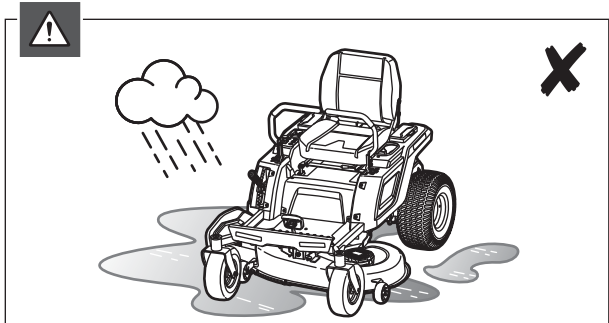
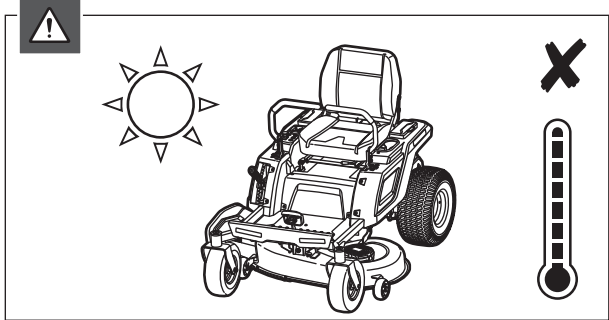
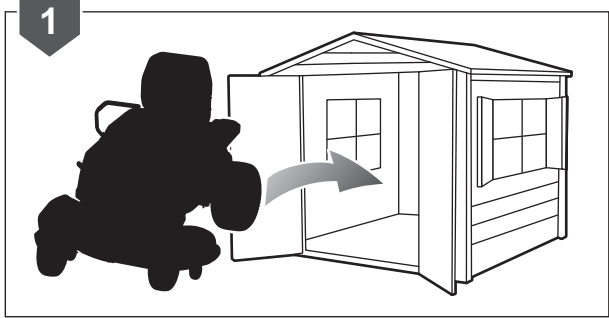


STORING THE MOWER

1. Store the mower in a clean, dry, and well-ventilated place that is inaccessible to children. Do not store the product near any appliance that operates with flame, such as a gas water heater, clothes dryer, or furnace. Keep the product away from corrosive agents such as garden chemicals and de-icing salts.

WARNING: If the mower must be stored outside, make sure that it is covered completely to protect it from the elements.

2. Step on the brake pedal, and engage the parking brake.



MAINTENANCE

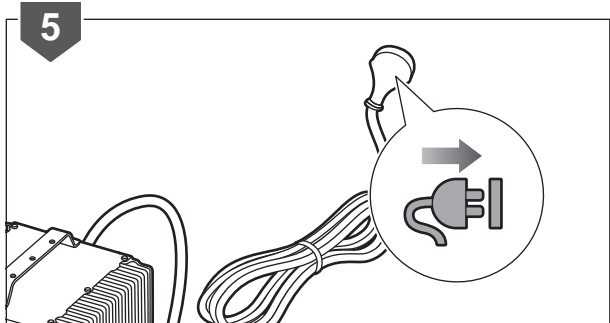
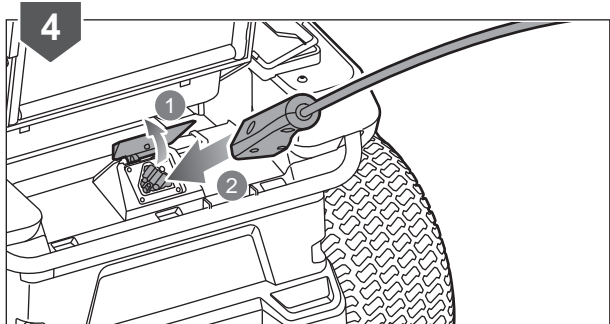
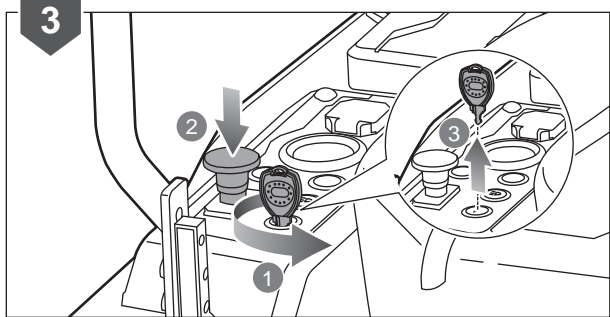
3. Push down the blade engage knob to stop the blades. Turn the start key to the OFF position, and remove the key.

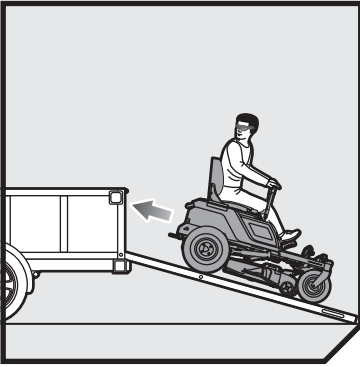
NOTE: Always remove the key during storage, and place the key in a location that is inaccessible to children.

4. Lift up the charging port cover, and connect the charger cable to the charging port.

5. Connect the power cord to an AC outlet. When powered and connected to the mower, the charger LED indicators illuminate to indicate the charger's status.

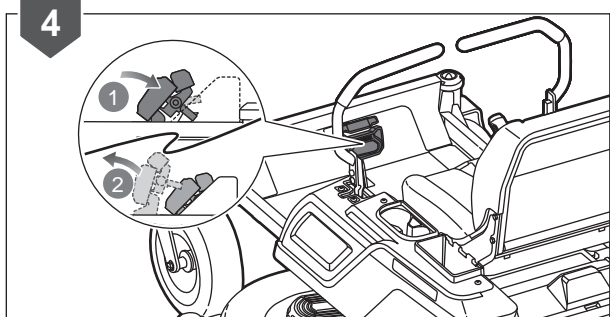
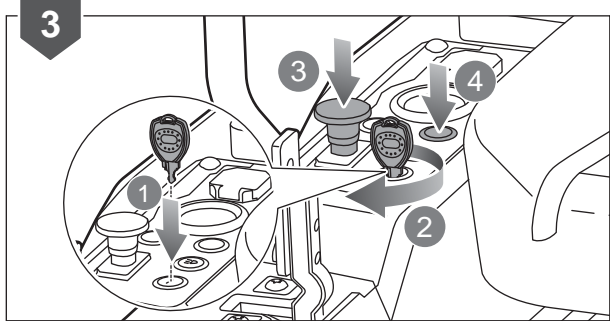
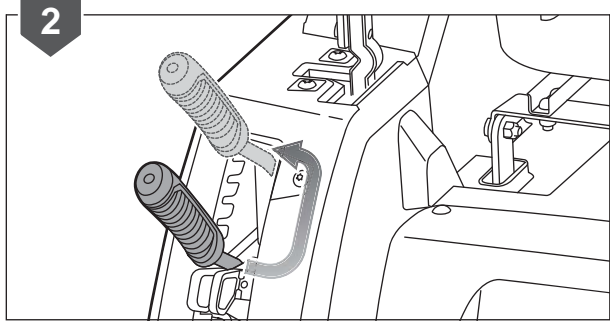
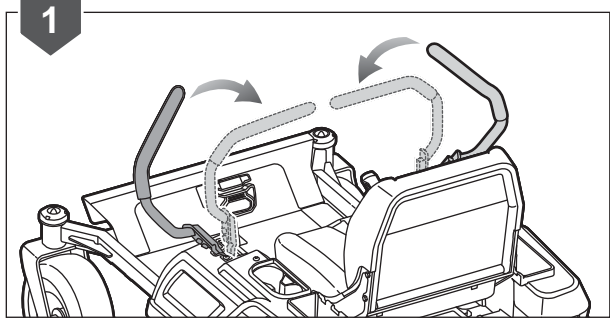
NOTE: Charge the mower for the entire time of storage. If it is not possible to leave the charger connected, charge the mower at least once a month.





TRANSPORTING THE MOWER

1. Ride the mower, and set the drive levers to the neutral position.
2. Set the cutting deck to the maximum height.
3. Insert the start key, and turn the key to the ON position. Push the blade engage knob to stop the blades. Press the low speed drive button.
4. Disengage the parking brake.



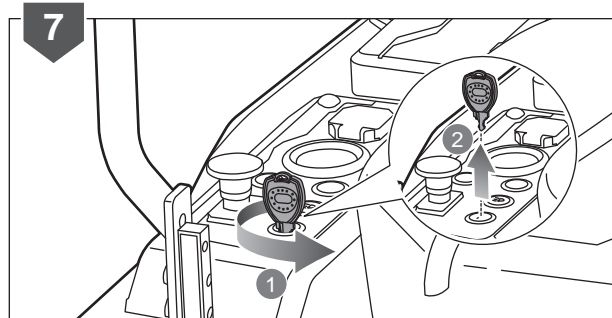
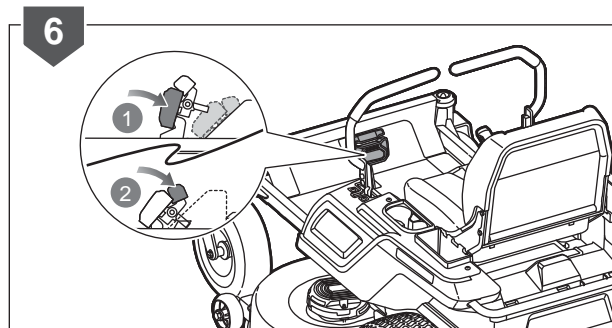
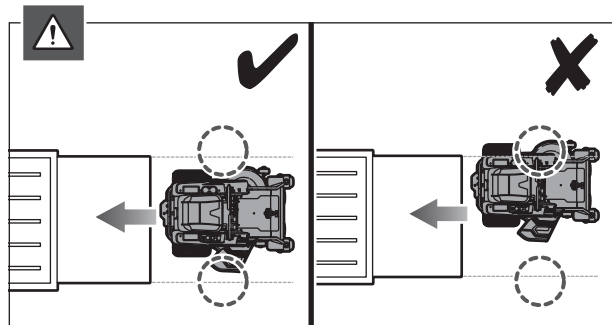
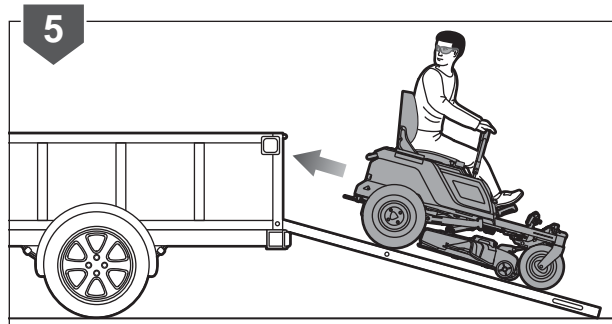
MAINTENANCE

5. Slowly drive the mower backwards onto the ramp and into the trailer.

WARNING: Centre the mower on the ramp, and drive in a low speed when backing up the mower to minimize the risk of the wheels from going off the side of the ramp.

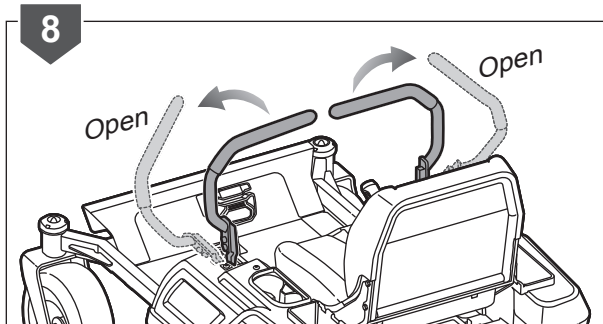
6. Step on the brake pedal, and engage the parking brake.

NOTE: Always remove the start key when transporting the mower. Secure the mower as needed using straps or cables to prevent movement during transport.



MAINTENANCE

8. Set the drive levers to the open position, and exit from the mower.



MAINTENANCE SCHEDULE

	Inspect before each use	Every 25 hours	Every 50 hours or yearly	Before storage
Check brake operation	■			
Check tire pressure	■			
Check safety interlock system	■			
Check for loose fasteners	■			■
Clean debris from the product	■			■
Check/Replace mower blades		■		
Clean battery terminals			■	

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

When the product 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, have the product serviced only by an authorised service centre.

TROUBLESHOOTING

If these solutions do not solve the problem, have the product serviced only by an authorised service centre.

Problem	Possible cause	Solution
The product does not start.	The battery charge is low.	Charge the battery.
	The charger is connected to the product.	Disconnect the charger from product.
	The start key is not installed or is in the OFF position.	Install the start key, and turn to the ON position.
	Poor battery cable connections	Check and clean all the battery connections.
The product will not move.	The start key is not installed or is in the OFF position.	Install the start key, and turn to the ON position.
	The drive levers are in the neutral or open position.	Move the drive levers in the preferred direction (forward or reverse).
	The brake is pressed and/or parking brake is engaged.	Release the brake pedal and the parking brake, then open and close the drive levers to reset the mower.
	The charger is connected to the product.	Disconnect the charger from product.
The product is cutting grass unevenly.	The operator is not fully seated.	Fully sit down on the seat, return the drive levers to the neutral position, and try again.
	The tire pressure is uneven.	Check the tire pressure in all four tires.
	The blade is worn, bent, loose, or dull.	Replace the blade.
The product is not mulching properly.	There is build-up of debris under the product.	Clean underside of the mower deck.
	The mowing speed is too fast.	Mow at a slower speed.
	There are wet grass clippings sticking to the underside of the deck.	Wait until the grass dries before mowing.
	The grass is too high.	Mow once at a high cutting height, then mow again at the preferred height.
The product is not mulching properly.	The blade is worn, bent, loose, or dull.	Replace the blade.
	The mowing speed is too fast.	Mow at a slower speed.

TROUBLESHOOTING

Problem	Possible cause	Solution
The product is vibrating at a higher speed.	The blade is unbalanced, loose, or excessively or unevenly worn.	Replace the blade.
	The motor shaft is bent.	Stop the motor, and remove the start key. Inspect the product for damage. Have the product serviced by an authorised service centre before restarting.
Poor grass discharge.	The side discharge chute or opening is plugged.	Clean the side discharge chute and opening.
	The grass is wet.	Allow grass to dry before mowing.
	The mowing speed is too fast.	Mow at a slower speed.
The motor stops while cutting.	The grass is too high.	Mow once at a high cutting height, then mow again at the desired height.
	The cutting height is set too low.	Raise the cutting height.
	The battery charge is low.	Charge the battery.
The blades do not rotate.	The operator is not fully seated.	Fully sit down on the seat, return the drive levers to the neutral position, and try again.
	The battery charge is low.	Charge the battery.
	The blade engage knob is down.	Pull up the blade engage knob.
	The operator is not fully seated.	Fully sit down on the seat, return the drive levers to the neutral position, and try again.
The blades do not rotate while moving in reverse.	There is build-up of debris under mower.	Clean the underside of the mower deck.
	The blade engage knob is down.	Pull up the blade engage knob.
The product won't reach full speed.	The battery charge is low.	Charge the battery.
	The low-speed drive feature is engaged.	Turn off the low-speed drive.
The blades continue to turn after the operator leaves the seat without engaging the parking brake.	The safety interlock system is not functioning correctly.	Ensure that the safety interlock system seat plug is fully connected. If the blades still won't stop, have the product serviced only by an authorised service centre.
The headlights are not working.	The headlights are off.	Press the headlight button to turn on the headlights.
	The headlights are damaged.	Have the headlights replaced only at an authorised service centre.
The battery will not charge.	The battery cells are bad.	Replace the battery.
	The cable connections are poor.	Check and clean all the battery connections.

TROUBLESHOOTING

CHARGER ERROR CODES

Code	Cause	Solution
One red flash	The battery temperature is too high.	Allow hot batteries to cool down, then try charging again.
Two red flashes	The battery voltage is too low or too high.	Check the battery voltage. If battery voltage is too low, check for poor battery connections, and reconnect properly. If battery voltage is too high, check that the installed battery has the correct battery rating.
Three red flashes	Charge timeout caused by battery pack not reaching required voltage The charger reduced output due to high temperatures not able to timely fully charge the battery.	Check the charger and mower connections. Operate the charger at a lower ambient temperature. Unplug the charger for 15 seconds, then try charger again..
Four red flashes	Check for short circuited or damaged cells.	Unplug the charger for 15 seconds, then try charging again. Return the battery pack to an authorised service centre if fault persists.
Five red flashes	Over-temperature: charger shut down due to high internal temperature.	Make sure that the charger cooling fins are clear of obstruction. If the charger is hot, allow the charger to cool down, then try charging again. Unplug the charger for 15 seconds, then try charging again..
Six red flashes	Charger internal fault	Unplug the charger for 15 seconds, then try charging again.. Return the charger to an authorised service centre if fault persists.

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

PRODUCT SPECIFICATIONS

Zero-Turn Mower

Model	RY48ZTR100
Input voltage	48 V DC
Drive motor	
Hardware model and version	Master: YPK1002.01, V1.7 Slave: YPK1002.02, V1.7
Software version	ZTR20190129 V1.8

Deck motor

Hardware model and version	Master: PM177-07B, GX-PT16-v1.9 Slave: PM177-08B, GX-PT16-v1.9
Software version	GXDH0116

Gross weight (shipping weight)	355 kg
Net weight	315 kg
Cutting rating power	2600 W
Drive rating power	1500 W
Height adjustments	3.81 cm to 11.43 cm
Wheel size	38 cm front, 40 cm rear
Cut size	96.5 cm
Turning radius	0

Driving speed

Maximum speed	12.1 kph
Low-speed drive	8 kph

Tire pressure

Front	19 psi
Rear	22 psi

Charger

Model	913-4810-08
Input	100-240 V AC, 50/60 Hz, 6–12 A
Output	48 V, 16 A
Charge time (first-time use)	24 H
Charge time (after first-time use)	Always connect charger when not in use.

Battery

Model	LPC12-100 (12V 100 Ah)
Type	Sealed lead-acid battery
Dimensions	330 x 173 x 220 mm
Battery weight	34.1 kg
Kit details	4 x LPC12-100
Total battery weight	136.4 kg

Noise emission level (according to ISO 3744:2010)

Sound power level	$L_{WA} = 101.5 \text{ dB (A)}$, $K = 3 \text{ dB (A)}$
Sound pressure level	$L_{pA} = 89.9 \text{ dB (A)}$, $K = 3 \text{ dB (A)}$

Vibration level (according to EN ISO 5395-1 and EN ISO 5395-3)

Left handle	$<2.5 \text{ m/s}^2$ (0.244 m/s^2)
Right handle	$<2.5 \text{ m/s}^2$ (0.247 m/s^2)
Whole body	$<2.5 \text{ m/s}^2$ (1.477 m/s^2)
Uncertainty	$K = 1.5 \text{ m/s}^2$

REPLACEMENT PART NUMBERS

Battery 100 Ah	099749017111
Charger	099749017106
Mulching blade	682282001
Mulching cover	099749017067
Rear wheel assembly	099749017011
Front wheel assembly	099749017005
Bagging kit, ZTR	000997496
Bagging blade, ZTR	682351001
Side discharge chute	099749017068

VIBRATION LEVEL

The declared vibration value has been measured with a standard test method and may be used to compare one tool with another.

The declared vibration value may be used in a preliminary assessment of exposure.

The vibration emission during actual use of power tool can differ from the declared total value depending on the ways in which the tool is used.

Identify safety measures to protect yourself based on an estimation of exposure in the actual conditions of use, taking account of all parts of the operating cycle such as the times when the tool is switched off.

SLOPE GUIDE

WARNING

Slopes are a major factor related to tip-over and roll-over accidents that 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 a slope, do not mow it. For your safety, do not attempt to mow slopes greater than 15 degrees. Do not operate in reverse down a slope, unless the mower stops while going uphill. In the situation, stop the blades, look behind you, and back up slowly. Make a copy or cut out the slope guide image on the next page, and use it to determine if your slope is too steep for safe operation.

- Fold page on dotted line.
- Locate a vertical object on or behind your slope (i.e., pole, building, fence, tree, etc.).
- Align either edge of slope guide with vertical object.
- Adjust gauge until bottom left corner touches the slope.
- Do not attempt to mow slopes greater than 15°.



*RYOBI is a trademark of Ryobi Limited,
and is used under license.*

Imported by:

Techtronic Industries Australia Pty Ltd
31 Gilby Road, Mount Waverley, VIC 3149,
Melbourne, Australia

Techtronic Industries N.Z. Limited
Unit C, 70 Business Parade South,
Highbrook, Auckland 2013, New Zealand

099749017001-01