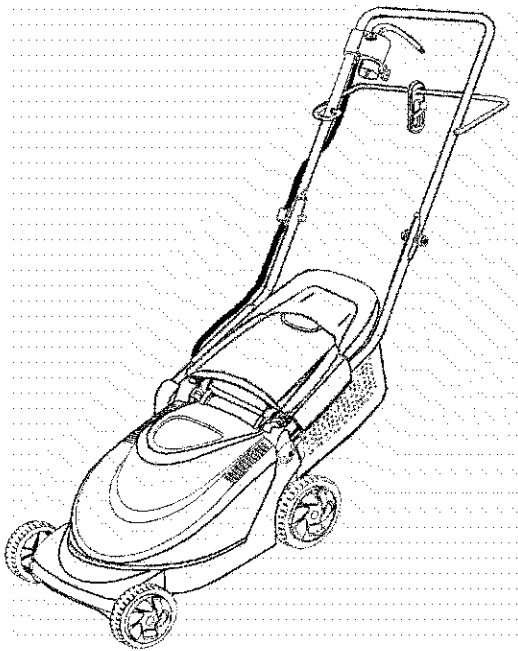


RYOBI®

Operator's Manual



**Electric Lawn Mower
13" Rear Bagger**

Model 136

Item Number

247.370380

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY



This symbol on the product's nameplate
means it is listed by
UNDERWRITERS LABORATORIES INC.

MTD LLC P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

FORM NO. 769-00620
(12/2002)

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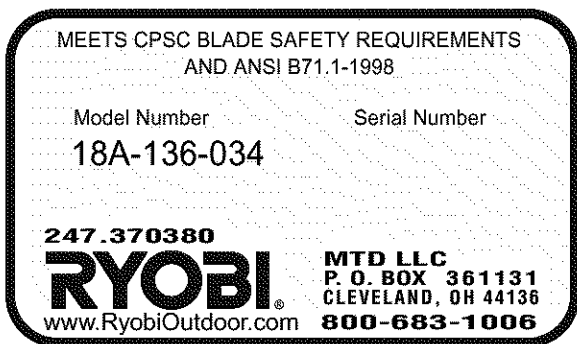
FINDING MODEL NUMBER

This Operator's Manual is an important part of your new Lawn Mower. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

You can locate the model number by standing behind the unit and looking at the rear of the deck. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.



Copy the model number here: _____

Copy the serial number here: _____

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call **1- (330) 558-7210** or **1- 800-683-1006** to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.

For more details about your unit, visit our website at www.ryobioutdoor.com

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES

READ ALL INSTRUCTIONS!



WARNING: This symbol points out important safety instructions, which if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—**HEED ITS WARNING.**



DANGER: This machine was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.



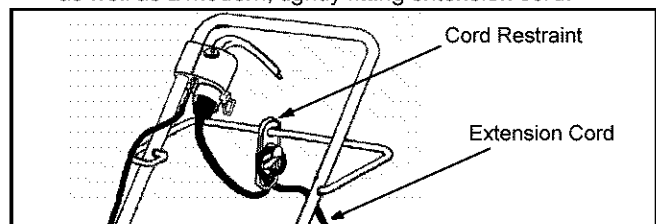
When using electric lawnmowers, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. These basic precautions include the following:

GENERAL OPERATION

1. Read, understand, and follow all instructions on the machine and in the manual before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.
4. Never allow adults to operate this machine without proper instruction.
5. To help avoid blade contact or a thrown object injury, stay in the operator zone behind the handles and keep children and bystanders at least 75 feet from the machine while it is in operation. Stop motor if anyone enters the area.
6. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones, toys and other foreign objects, which could be tripped over or thrown by the blade. Thrown objects can cause serious personal injury.
7. Plan your mowing pattern to avoid discharge of material toward roads, sidewalks, bystanders and the like. Also, avoid discharging material against a wall or obstruction, which may cause discharged material to ricochet back toward the operator.
8. Always wear proper eye protection while operating or performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
9. Always use a face or dust mask if operating in a dusty environment.
10. Dress Properly – Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and footwear is recommended when working outdoors.
11. Ground Fault Circuit Interrupter (GFCI) protection should

be provided on the circuit(s) or outlet(s) to be used for the lawn mower. Receptacles are available having built-in GFCI protection and may be used for this measure of safety.

12. To prevent electric shock use only with a UL listed extension cord set suitable for outdoor use, such as Type SW-A, SOW-A, STW-A, STOW-A, SJW-A, SJOW-A, SJTW-A, or SJTOW-A.
13. Extension Cord - Make sure your extension cord set is in good condition, is heavy enough to carry the current your mower will draw, and is polarized (one blade of plug is wider than the other). A 100' length of 14 AWG cord should be used. An acceptable substitute is a 50' length of 16 AWG cord. If a longer cord is needed, a 150' length of 12 AWG cord may be used. A longer length or undersized cord will cause a drop in line voltage resulting in a loss of power and overheating.
14. To reduce the likelihood of disconnection of the lawn mower from the extension cord set, be sure to use the cord restraint provided as shown in the illustration below as well as a modern, tightly fitting extension cord:



15. To reduce the risk of electric shock, this lawn mower has a polarized plug (one blade is wider than the other) and will require the use of a polarized extension cord. The mower plug will only fit into the polarized extension cord one way. If the plug does not fit fully into the extension cord, reverse the plug. If the plug still does not fit, obtain a correct polarized extension cord. A polarized extension cord will require the use of a polarized wall outlet. This plug will fit into the polarized outlet only one way. If the plug does not fit fully into the wall outlet, reverse the plug. If the plug still does not fit, contact a qualified electrician to install the proper wall outlet. Do not change the equipment plug, extension cord receptacle, or extension cord plug in any way.

16. Home circuit – This mower should be operated on a 15 AMP circuit. If you experience difficulty in starting with a standard 15 AMP fuse or circuit breaker, contact your nearest authorized service facility. Do not use a higher rated fuse or breaker without consulting your power company.
17. Do not abuse the cord by pulling the mower by the cord or yanking it to disconnect it from the receptacle. Keep cord from heat, oil, and sharp edges.
18. Many injuries occur as a result of the mower being pulled over the foot during a fall caused by slipping or tripping. Never operate this machine in bare feet, sandals, slippery or lightweight (e.g. canvas) shoes. Do not hold on to the mower if you are falling; release the handle immediately.
19. Never pull the mower back toward you while you are walking. If you must back the mower away from a wall or obstruction first look down and behind to avoid tripping and then follow these steps:
 - Step back from the mower to fully extend your arms.
 - Be sure you are well balanced with sure footing.
 - Pull the mower back slowly, no more than half way toward you.
 - Repeat these steps as needed.
20. Do not use lawn mower for any job except that for which it is intended. Do not force the lawn mower – Cut grass at a rate, for which the mower is designed, which will not sacrifice the performance or safety of the machine.
21. Do not operate the mower while under the influence of alcohol or drugs.
22. Stay Alert – Do not operate the mower when you are tired. Watch what you are doing. Use common sense.
23. Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade can amputate hands and feet.
24. Never attempt to make a wheel or cutting height adjustment while the motor is running.
25. Avoid dangerous environments – Never operate the mower in the rain or in wet or damp grass.
26. Mow only in daylight or in good artificial light. Walk, never run.
27. Stop the blade when crossing gravel drives, walks or roads.
28. If the equipment should start to vibrate abnormally, stop the motor and check immediately for the cause. Vibration is generally a warning of trouble.
29. Stop the motor and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the motor is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
30. Never operate mower without proper trail shield, discharge cover, grass catcher, motor/blade control or other safety protective devices in place and working. Never operate mower with damaged safety devices. Failure to do so can result in personal injury.
31. Only use parts and accessories made for this machine by the manufacturer. Failure to do so can result in personal injury.
32. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer or telephone 1- 800-683-1006 for assistance and the name of your nearest servicing dealer.

Slope Operation

Slopes are a major factor related to slip and fall accidents which can result in severe injury. Operation on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15 degrees, do not mow it.

Do:

1. Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
2. Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles. Remove all objects such as rocks, tree limbs, etc., which could be tripped over or thrown by the blade.
3. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your balance, release the motor/blade control handle immediately, and the blade will stop rotating within 3 seconds.

Do Not:

1. Do not mow near drop-offs, ditches or embankments, you could lose your footing or balance.
2. Do not mow slopes greater than 15 degrees as shown on the slope gauge.
3. Do not mow on wet grass. Unstable footing could cause slipping.

Children

1. Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the mower and the mowing activity. They do not understand the dangers. Never assume that children will remain where you last saw them.
 - Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
 - Be alert and turn mower off if a child enters the area.
 - Before and while moving backwards, look behind and down for small children.
 - Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your vision of a child who may run into the mower.
2. Never allow children under 14 years old to operate a power mower. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.

Service

1. When servicing use only identical replacement parts listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
2. Before cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the power cord when not in use and to prevent unintended starting.
3. Follow instructions for lubricating and changing accessories.
4. Inspect lawn mower cord and extension cords periodically and replace immediately, if damaged. Lawn mower cord should be repaired by an authorized service facility only.
5. Keep handles dry, clean and free from oil and grease.
6. To reduce a fire hazard, keep the motor free of grass, leaves and debris build-up.
7. Check the blade and motor mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked, and worn) Replace blade with the original equipment manufacturer's (OEM) blade only, listed in this manual.
8. Maintain your mower with care – Keep mower blade sharp and clean for best and safest performance. Mower blades are sharp and can cut, wrap the blade or wear gloves and use extra caution when servicing them.
9. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
10. Never tamper with safety devices. Check their proper operation regularly.
11. After striking a foreign object, stop the motor and disconnect the power cord. Thoroughly inspect the mower for any damage. Repair the damage before operating the mower.
12. Grass catcher components, discharge cover, and trail shield are subject to wear and damage which could expose moving parts or allow objects to be thrown. For safety protection, frequently check components and replace immediately with original equipment manufacturer's (OEM) parts only, listed in this manual.
13. When not in use, store lawn mower indoors in a dry area, locked-up and/or out of the reach of children.

Double Insulated Lawn Mower

Double insulation is a concept in the safety of electric lawn mowers, which eliminates the need for the usual three-wire grounded power cord and grounded power supply system. Wherever there is electric current in the mower, there are two complete sets of insulation to protect the user. All exposed metal parts are isolated from the internal metal motor components with protecting insulation.

IMPORTANT: Servicing of a lawn mower with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For repair service we suggest you return the lawn mower to your nearest authorized service dealer. Always use original factory replacement parts when servicing.

SAVE THESE INSTRUCTIONS!

WARNING: YOUR RESPONSIBILITY

- Restrict the use of this power machine to persons who read, understand, and follow the warnings and instructions in this manual and on the machine.

WARNING
TO REDUCE THE RISK OF INJURY, INSPECT CATCHER ASSEMBLY FREQUENTLY AND REPLACE WITH RECOMMENDED REPLACEMENT IF THERE ARE SIGNS OF WEAR OR DETERIORATION.

⚠ DANGER AVOID SERIOUS INJURY OR DEATH

- TO REDUCE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE UNIT TO WATER OR OPERATE UNIT ON WET GROUND - REPLACE DAMAGED CORD IMMEDIATELY.
- DISCONNECT FROM SUPPLY CIRCUIT BEFORE SERVICING OR REMOVING BLADE.
- KEEP HANDS AND FEET AWAY FROM ROTATING PARTS.
- DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
- REMOVE OBJECTS THAT CAN BE THROWN BY THE BLADE IN ANY DIRECTION. WEAR SAFETY GLASSES.
- USE EXTRA CAUTION ON SLOPES. DO NOT MOW SLOPES GREATER THAN 15°. MOW ACROSS NEVER UP AND DOWN NEVER PULL MOWER CLOSE TO YOUR FEET. LOOK DOWN AND BEHIND BEFORE AND WHILE MOVING BACKWARDS.
- TO REDUCE THE RISK OF INJURY, DO NOT OPERATE LAWN MOWER UNLESS CATCHER ASSEMBLY IS ATTACHED.
- WHEN REPAIRING THIS UNIT USE ONLY IDENTICAL REPLACEMENT PARTS. PARTS MUST BE REASSEMBLED IN PROPER ORDER TO MAINTAIN DOUBLE INSULATION PROTECTION. REFER TO REPAIR PARTS SECTION OF YOUR OWNERS MANUAL OR CONTACT YOUR AUTHORIZED SERVICE CENTER.

DANGER
KEEP HANDS and FEET AWAY

READ OPERATOR'S MANUAL. KEEP SAFETY DEVICES (BLADE CONTROL, TRAILING SHIELD, DISCHARGE COVER, ETC.) IN PLACE AND WORKING. IF DAMAGED, REPLACE IMMEDIATELY.

DOUBLE INSULATED

AC ONLY Volts 120
E214043 Amps 8
Hertz 60

UL LISTED

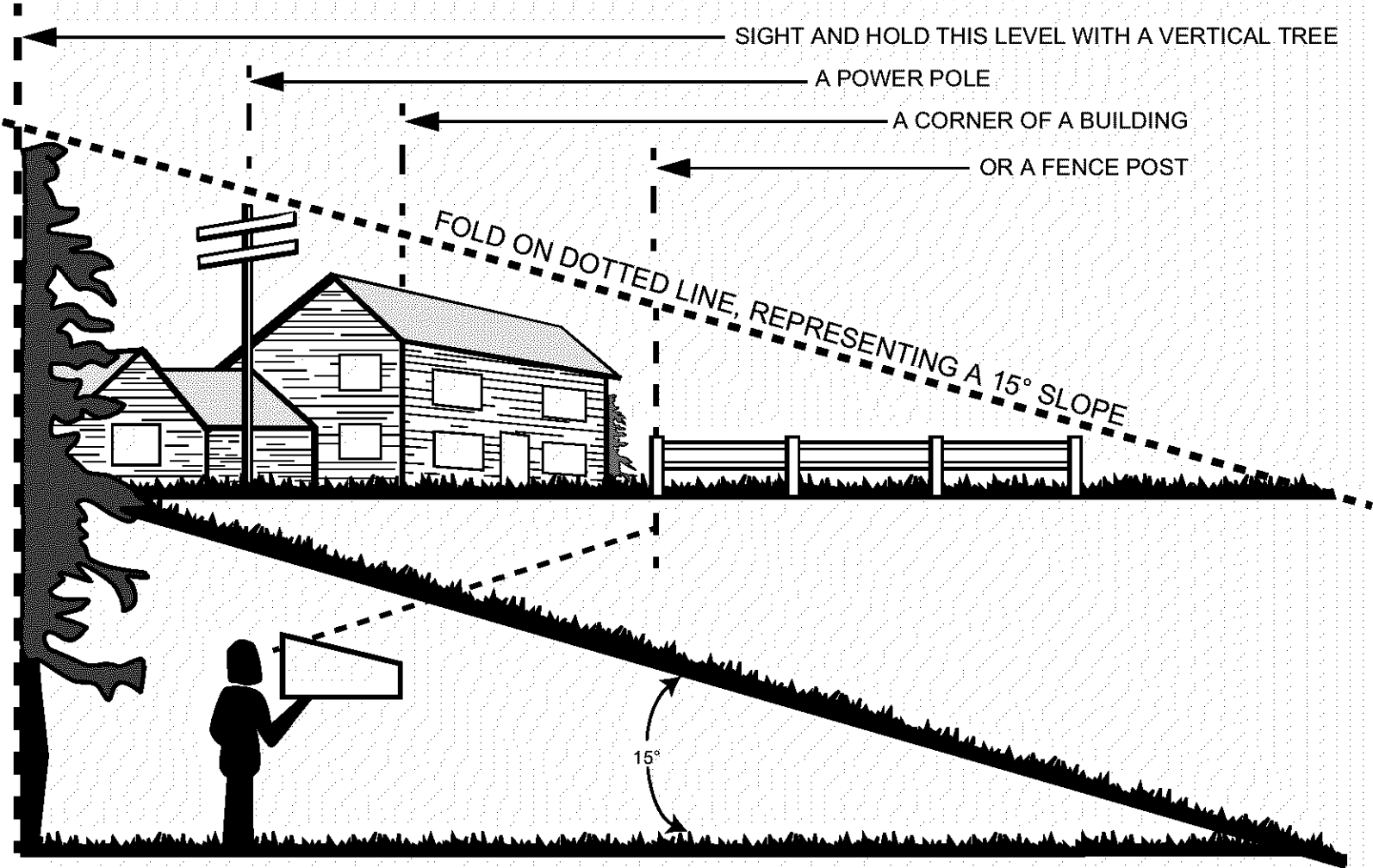
S30648
PLACE MODEL PLATE HERE

MADE IN HUNGARY

SECTION 2: SLOPE GAUGE

Use this page as a guide to determine slopes where you may not operate safely. Do not operate your lawn mower on such slopes.

USE THIS PAGE AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.



WARNING

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

SECTION 3: ASSEMBLING YOUR LAWN MOWER

Loose Parts in Carton

- Grass Catcher Assembly.
- Owner's Manual (not shown).
- Hardware Pack.
- Upper and Lower Handle w/ Guide Rod.
- Wheel Assemblies (4)

Tools Required

- Phillips head screwdriver.
- Adjustable wrench, a wrench set or socket set.

Attaching Wheels

The wheels for your mower will not require tools to install. Notice that there are two large wheel assemblies and two smaller wheel assemblies. The large wheels fit on the rear and the small wheels are for the front of the mower. To install the wheels:

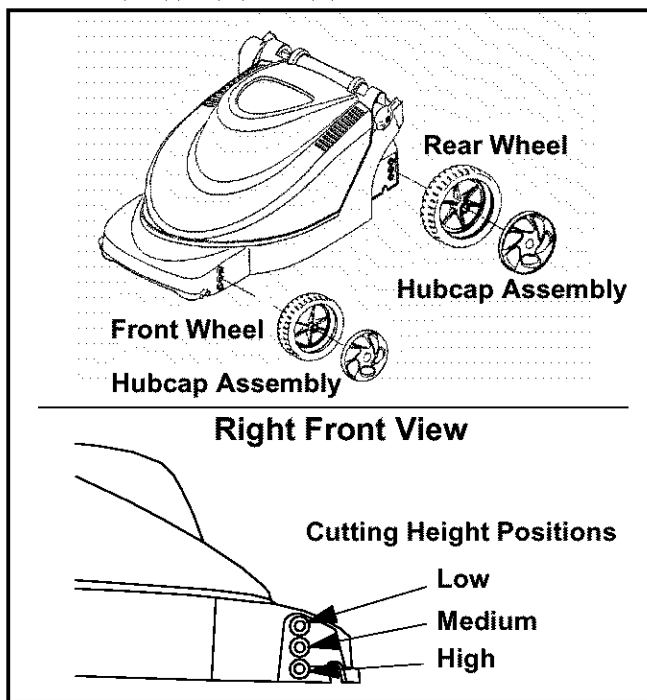


Figure 1

- Rest the mower on its side or place supporting blocks under one side of the mower.
- Refer to Figure 1 and insert the hubcap assembly through the wheel and thread the complete assembly into the desired height adjustment position by hand.

NOTE: It is recommended to use the highest cutting position initially to avoid scalping of the grass.

- By putting fingers into the grooves in the hubcap assembly, tighten firmly.

- Repeat this step for all wheels, being certain that all four wheels are in the same height position for an even cut. Refer to Figure 1 for cutting height positions.
- Also, be certain the smaller front wheels and the larger rear wheels are mounted correctly to the front and rear of the mower as shown in Figure 1.

Assembling Handle

Installing the Lower Handles

- Insert long end of the lower handle into the handle base. Make certain the small hole in the end of the handle is lined up with the hole in handle base.
- Using one of the two longer self tapping screws from the hardware pack, insert the screw through the tooth washer, flat washer, and the handle cap as shown in Figure 2.
- Align the handle cap so it rests flush against the handle base, and tighten the screw into the lower handle using a phillips screwdriver.
- Repeat this step for the remaining lower handle.
- Once both lower handles are installed, insert the lower handle plugs into the upper ends of the lower handles as shown in Figure 2.

Installing the Upper Handle

- Standing behind the lawnmower with the upper handle, make certain the two holes that will hold the blade / motor control are on the right hand side. See Figure 2 for proper alignment of upper handle.

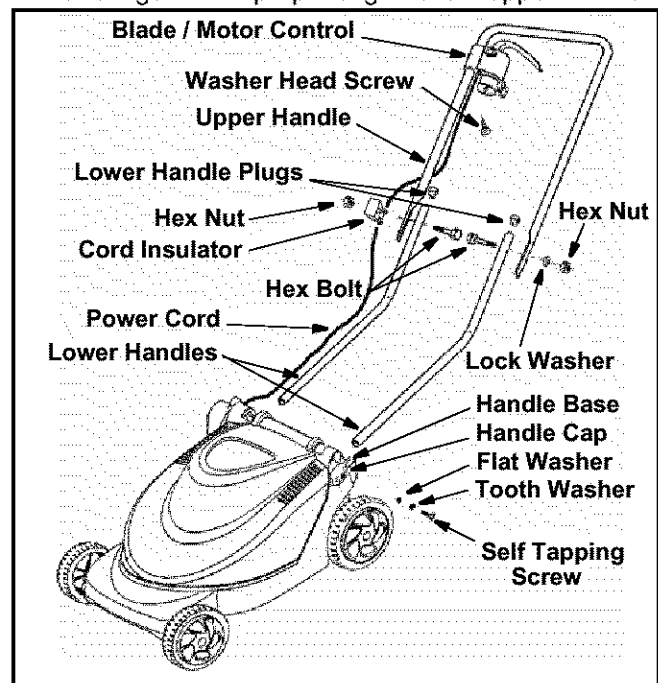


Figure 2

- Align the holes in the lower handle with those of the upper handle and insert the hex bolts through both holes.
- On the left side, install the lock washer and hex nut and tighten finger tight.
- On the right side, insert the hex nut into the hex hole in the cord insulator and thread onto the hex bolt on the right side. Make certain that the curved portion of the cord insulator is resting flush against the upper handle.
- Tighten the hardware firmly using an adjustable wrench or suitable tightening tool.
- Refer to Figure 2 for proper alignment of hardware and handles.

Attaching the Blade / Motor Control to the Upper Handle

- Holding the blade / motor control, which is attached to the mower, route the power cord as it is shown in Figure 2 along the right side of the handle.
- Mount the blade / motor control to the upper handle by inserting its two pedestals into the two holes in the upper handle. Refer to Figure 2 for correct positioning on the upper handle.
- Close the rear cover on the blade / motor control and using the small washer head screws included in the hardware kit, screw them into the holes in the rear cover with a phillips screwdriver, thus securing the blade / motor control to the upper handle.
- Route the power cord through the cord insulator on the right handle as shown in Figure 3.

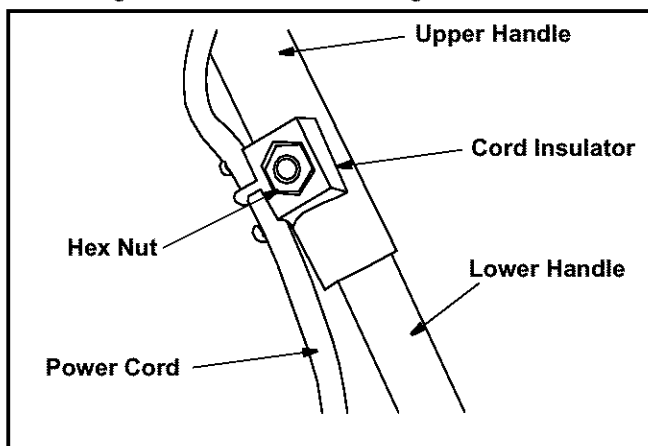


Figure 3

Installing Guide Rod and Cord Restraint

The guide rod and cord restraint need to be installed on the upper handle of the lawn mower. To install, see Figure 4 and continue:

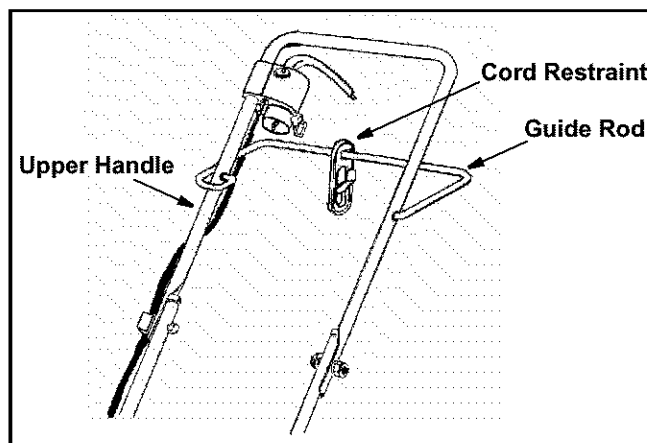


Figure 4

- Slide the cord restraint onto the guide rod as shown in Figure 4.
- Standing behind the unit, working on the left portion of the upper handle, insert the Z-end of the guide rod into the hole on the outer part of the upper handle.
- With the left part of the guide rod inserted in the upper handle, bring the other end of the guide rod around the outside of the upper handle on the right side, and insert the end into the hole on the inner portion of the upper handle. Refer to Figure 4 for proper mounting position.

Assembling Grass Catcher



WARNING: Never operate the mower without the proper trail shield, discharge cover, grass catcher, blade/motor control or other safety protective devices in place and working. Never operate the mower with damaged safety devices. Failure to do so can result in personal injury.

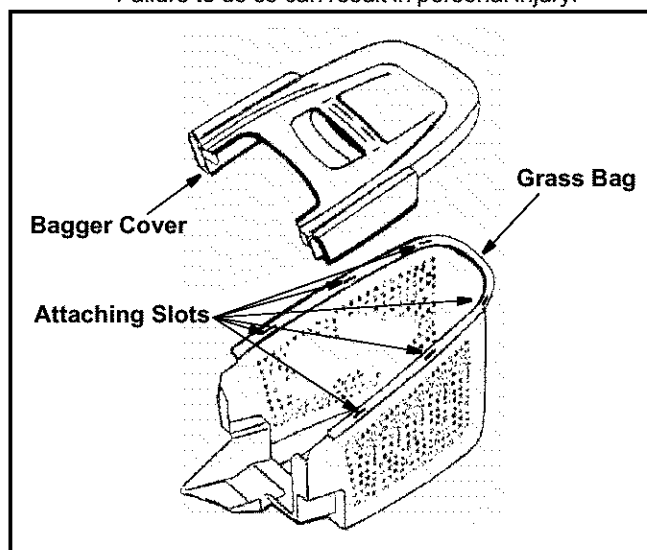


Figure 5

- Insert the six clips on the underside of the bagger cover into the corresponding attaching slots in the grass bag.
- Press firmly in the on the top of the bagger cover in the area of the attaching slots to ensure that the clips are locked into place.

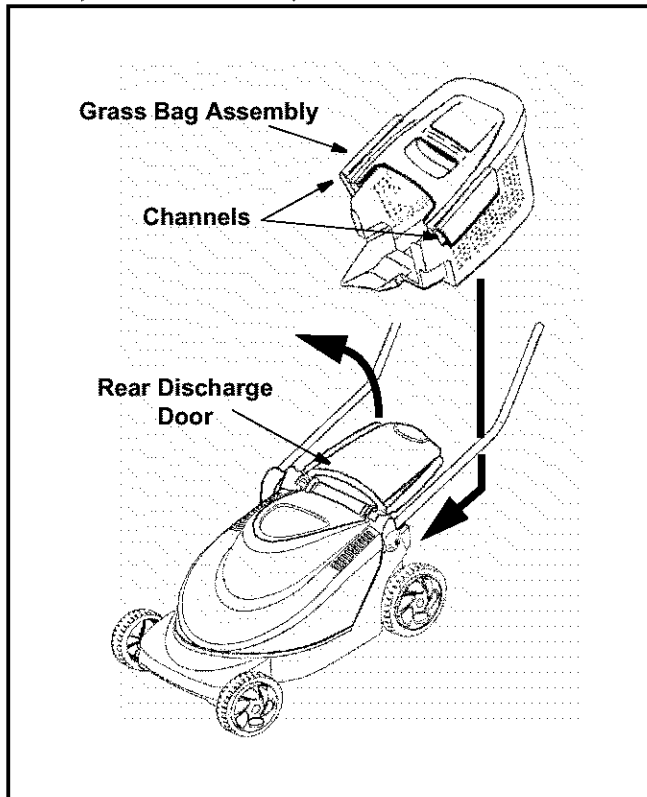


Figure 6

Attaching The Grass Catcher

- Lift the rear discharge door on the back of the mower. Refer to Figure 6.
- Place the channels of the grass bag assembly over the lower portion of the lower handle as shown in Figure 6.
- Slide the assembly towards the mower until it rests against the body of the mower.
- Release the rear discharge door.

To remove the grass catcher, lift the rear discharge door on the mower. Lift the grass catcher up and off of the lower handles. Release the rear discharge door.



WARNING: Do not operate this mower with the rear discharge door open, unless the complete grass catcher is properly mounted on the mower.

SECTION 4: KNOW YOUR LAWN MOWER

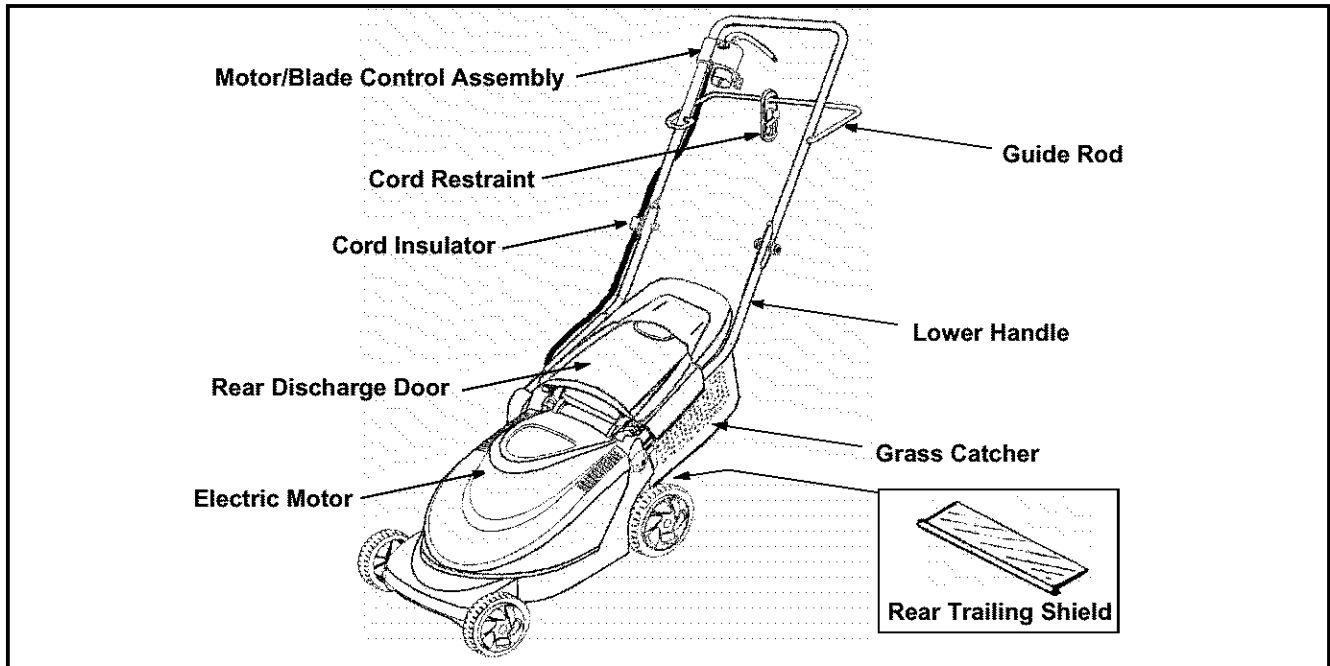


Figure 7

Read this operator's manual and safety rules before operating your lawn mower. Compare the illustration in Figure 7 with your lawn mower to familiarize yourself with the location of various parts and controls. Save this manual for future reference.



WARNING: The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can damage eyes severely. Always wear safety glasses while operating the mower, or while performing any adjustments or repairs.

Motor/Blade Control Assembly

The motor/blade control is located on the upper handle of the mower. Refer to Figure 7. The motor/blade control handle engages and disengages the motor and blade.



WARNING: The motor / blade control assembly is a safety device. Never attempt to bypass its operations.

Rear Trailing Shield

The rear trailing shield, attached between the rear wheels of your mower, is provided to minimize the possibility of objects being thrown at the operator from

the rear of the mower.

Circuit Breaker

The mower is equipped with a circuit breaker, located on the motor/blade control. Refer to Figure 7. This circuit breaker may trip when too much strain is placed on the mower. See *Making Adjustments Section*.

Guide Rod and Cord Restraint

The cord restraint is located on the back of the upper handle attached to the guide rod. When used properly, the cord restraint helps to protect the motor/blade control assembly and also the extension cord powering the unit.

Grass Catcher

The grass catcher assembly is designed to catch the grass clippings that are cut from your lawn. Never mow without the grass catcher in place on the machine.

Electric Motor

The electric motor is attached to the cutting blade. When engaged, the electric motor turns the cutting blade and works to cut grass.

SECTION 5: OPERATING YOUR LAWN MOWER

Cord Connection

Extension Cord Selection

Listed below are the lengths of extension cord and corresponding acceptable cord ratings.

- 50' Cord — use 16 AWG
- 100' Cord — use 14 AWG
- 150' Cord — use 12 AWG

In all cases, the extension cord should be a UL listed cord set suitable for outdoor use.

IMPORTANT: Using any other length or rating of cord will diminish the performance and possibly the life of the electric motor, and may also cause breakers to trip or fuses to blow in your home's fusebox.

Cord Restraint

- Attach the extension cord (not provided with unit) to the cord restraint as follows.
- Form a small loop in the extension cord. Allow enough excess cord to make the connection to the motor/blade control (approximately 7 inches).
- Slip the loop through the slot on the bottom of the cord restraint, and up over the tab, to prevent disconnection from the motor/blade control during operation.
- Keep the cord restraint as close to the motor/blade control as possible. See Figure 7.

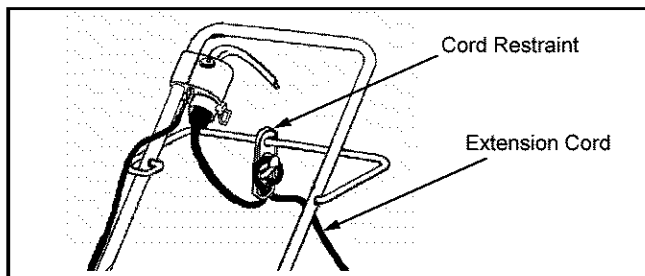


Figure 8

Connecting to the Motor/Blade Control Assembly

Connect the plug on the extension cord fully onto the plug on the motor / blade control. The mower is equipped with a polarized AC power plug (one blade of the plug is wider than the other), which will fit into the plug on the extension cord only one way. If unable to make a full connection, try reversing the plug on the extension cord. Should the plugs still fail to fit, contact your service dealer for assistance. Do not defeat the safety purpose of the polarized plug.

Connecting to the Electric Power Source



WARNING: This mower should be operated on a 15 AMP circuit. If you experience difficulty in starting with a standard 15 AMP fuse or circuit breaker, contact your nearest authorized service facility. Do not use a higher rated fuse or breaker without consulting your power company.

Plug the extension cord into any convenient 110-120 volt 60 cycle A.C. outlet or receptacle for your source of power. This outlet may be located either out-of-doors or indoors. To avoid blowing fuses, pick an outlet that is not overloaded. Your mower will operate satisfactorily on a circuit that is fused for 15 amperes. Do not use oversized fuses without consulting an electrician. If an inside receptacle is used, the extension cord can be taken out either through the doorway or a window.

Starting the Motor and Blade

NOTE: For best results, raise the wheels to the highest cutting position until it is determined which height is best for your lawn. See *Cutting Height Adjustment in the Making Adjustments section.*

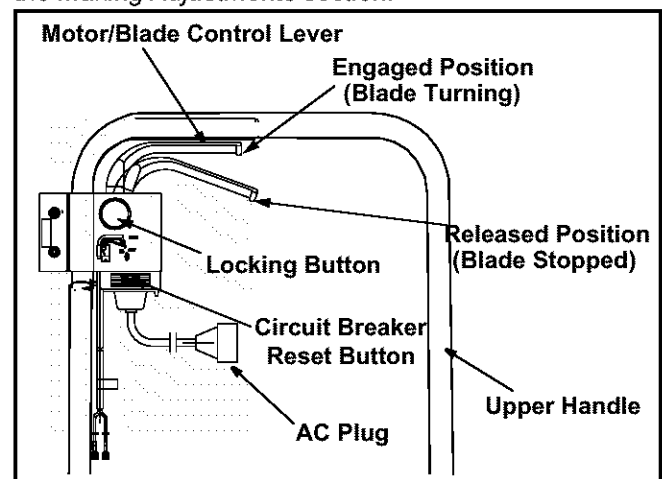


Figure 9

To engage the motor and blade, first be certain to follow the previous steps for connecting a suitable extension cord, then referring to Figure 9:

- Stand behind the unit and depress the locking button.
- While holding the locking button down, pull the motor / blade control lever and hold it against the upper handle.
- Release the locking button.

Stopping the Motor and Blade



WARNING: The blade continues to rotate for a few seconds after the motor is shut off. If the motor does not come to a stop when the motor/blade control handle is released, contact an authorized service dealer.

To stop the motor and blade from spinning:

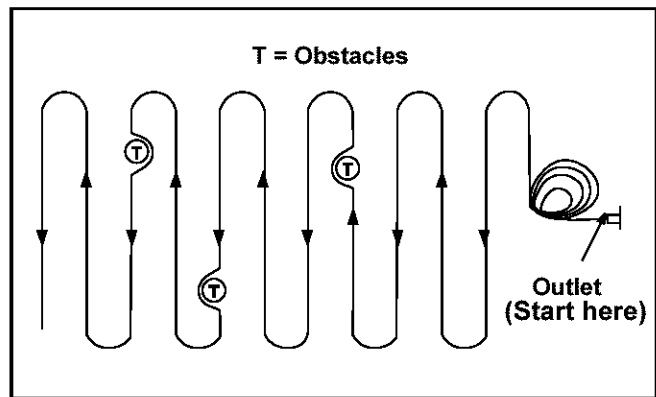
- Release the motor/blade control lever from its position against the upper handle and the blade and motor will quickly come to a stop.

NOTE: A high pitched noise may occur as the electric motor decelerates and some sparking may occur also at the same time. This is normal behavior when the motor and blade is disengaged.

Mowing Your Lawn

NOTE: A sharp blade will greatly increase the performance of the lawn mower, especially in conditions of higher grass. Be sure to check the blade and sharpen it at least once a year as outlined in the Maintenance section.

- Be sure that lawn is clear of stones, sticks, wires, or other objects which could damage the lawn mower or motor. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- To prevent electric shock, do not operate the mower in damp or wet conditions.
- Always start from the **point closest to the power source** where the cord is connected. Never mow around the lawn in circles; travel back and forth across the lawn, starting from the point closest to the outlet and then moving away from the outlet so



the cord lies in the cut portion of the lawn, out of the way. See Figure 10.

Figure 10

- Do not allow the extension cord to wrap around trees, shrubs or other obstacles. When picking up the extension cord, wind the cord in a series of equal loops on each side of your hand to prevent snarling.
- When cutting heavy grass, reduce walking speed to allow more effective cut and proper collection of the clippings. For a healthy lawn, always cut off one-third or less of the total length of the grass. The average lawn should be approximately 1-1/2 to 2 inches during the cool season, and over 2 inches during hot months. For a healthier and better looking lawn, cut more often and after moderate growth. The lawn should be cut in the fall season as long as there is growth.



WARNING: If you strike a foreign object, stop the motor, and unplug from the power supply circuit. Thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Excessive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

SECTION 6: MAKING ADJUSTMENTS

Cutting Height Adjustment

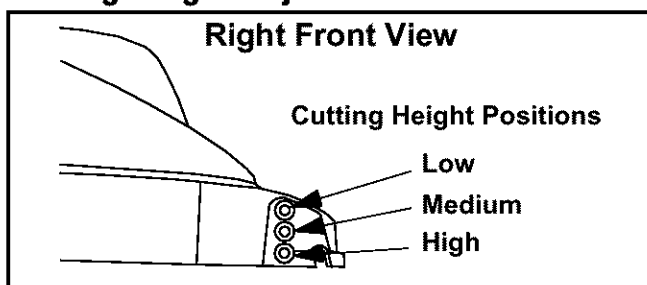


Figure 11

NOTE: For rough or uneven lawns, move the wheels to a position which will give a higher cutting height.



WARNING: Always stop the motor and disconnect from the power source before cleaning, lubricating or performing any repairs or maintenance on the lawn mower.

This mower has three cutting height positions as shown in Figure 11. To adjust the cutting height:

- Remove a wheel assembly and reinstall it in a different position in order to achieve a higher or lower position. Refer to the Assembly section also.
- Repeat this procedure for all wheels, being certain to mount them all in the same position at each corner. Failing to do this will produce an uneven cut.

Resetting the Circuit Breaker

The mower is equipped with a circuit breaker, located on the motor/blade control assembly as shown in Figure 9. This circuit breaker may trip when too much strain is placed on the mower. The circuit breaker may have been tripped if the mower will not run.

- If this occurs, unplug the mower, wait approximately five minutes, then depress the reset button. Refer to Figure 9.
- Plug the mower back in, restart the mower, but be sure to reduce the strain on the mower (i.e., mow at a higher cutting height, reduce cutting speed, or take a smaller width of cut).
- If the circuit breaker does not reset, or if it trips repeatedly under normal cutting conditions, unplug the mower from the extension cord and unplug the extension cord from the power source. Then check to make certain your cord is the correct length and rating as listed in the *Operating Your Lawn Mower* section. If the cord is correct and is also not damaged, take the machine to an authorized service dealer for repair.

SECTION 7: MAINTENANCE

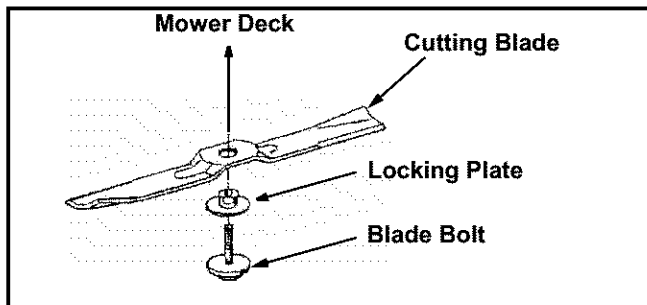


Figure 12



WARNING: Always stop the motor and disconnect from the power source before cleaning, lubricating or performing any repairs or maintenance on the lawn mower.

Cutting Blade Replacement



WARNING: Always protect hands by wearing heavy gloves and/or wrapping cutting edges with newspapers or other materials when performing any blade maintenance. Be certain to disconnect the power supply.

Removing the Blade

- Stop the motor and disconnect the power supply to the mower. Turn the mower on its side.
- Use a block of wood between the blade and the mower deck to prevent the blade from turning when removing the bolt.

- Using a 15/16" wrench or socket, loosen the blade bolt and remove the blade.

Installing the Blade



WARNING: The blade hardware is not only used to attach the blade assembly, but is also an insulated safety device and should never be altered in any way. If replacement is necessary, use original equipment parts as shown in the parts list on page 16.

- Place the cutting blade, locking plate, and blade bolt on the motor shaft and thread the blade bolt in finger tight. Refer to Figure 12.

NOTE: Make certain to replace the parts in the exact order in which they were removed. When installing the cutting blade, be sure it is installed with the curved ends pointing towards the mower deck and not towards the ground.

- Torque the blade bolt down using a torque wrench to assure the bolt is tightened properly. The recommended torque for the blade bolt is 450-600 in. lbs. To insure safe operation of your unit, all nuts and bolts must be checked periodically for correct tightness.

Sharpening the Blade

To sharpen the blade, first remove the blade as outlined in the previous section. DO NOT attempt to sharpen the blade while it is attached to the mower. The blade can be sharpened with a file or on a grinding wheel.

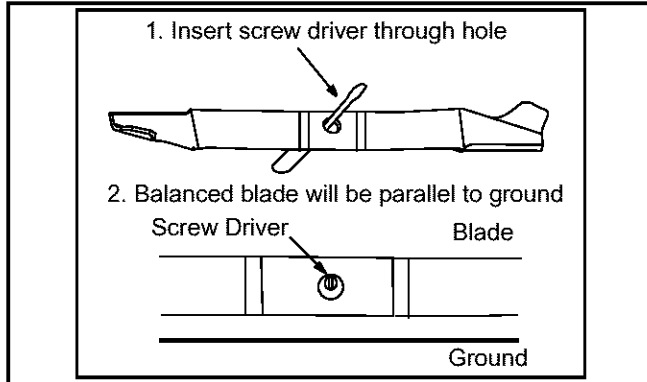


Figure 13

- When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade.
- Test the blade by balancing it on a round shaft screwdriver or a blade balancer as shown in Figure 13.
- If the blade is not balanced, remove metal from the heavy side until it balances evenly.



WARNING: An unbalanced blade will cause excessive vibration when rotating at high speeds. It may also cause damage to the mower and could break, causing personal injury.

- Reinstall the blade as described earlier in this section making certain to torque the cutting blade to specifications.

Mower Deck



WARNING: To reduce the risk of electric shock, do not expose the mower to water.

The underside of mower deck should be cleaned after each use as grass clippings, leaves, dirt and other debris will accumulate. This accumulation of grass clippings, etc., is undesirable as it will promote rust and corrosion.

- Remove any buildup of grass and leaves on or around the motor cover (**do not** use water). Wipe the mower clean with a dry cloth occasionally.
- If debris is allowed to build up on the underside of the unit, tilt the mower forward or on its side and scrape it clean with a suitable tool.

Lubrication

At the beginning and end of each mowing season:

- Lubricate the springs on the rear discharge door with a light oil.
- Remove the wheels and lubricate the surface of the axle bolt and the inner surface of the wheel with light oil.

SECTION 8: OFF-SEASON STORAGE

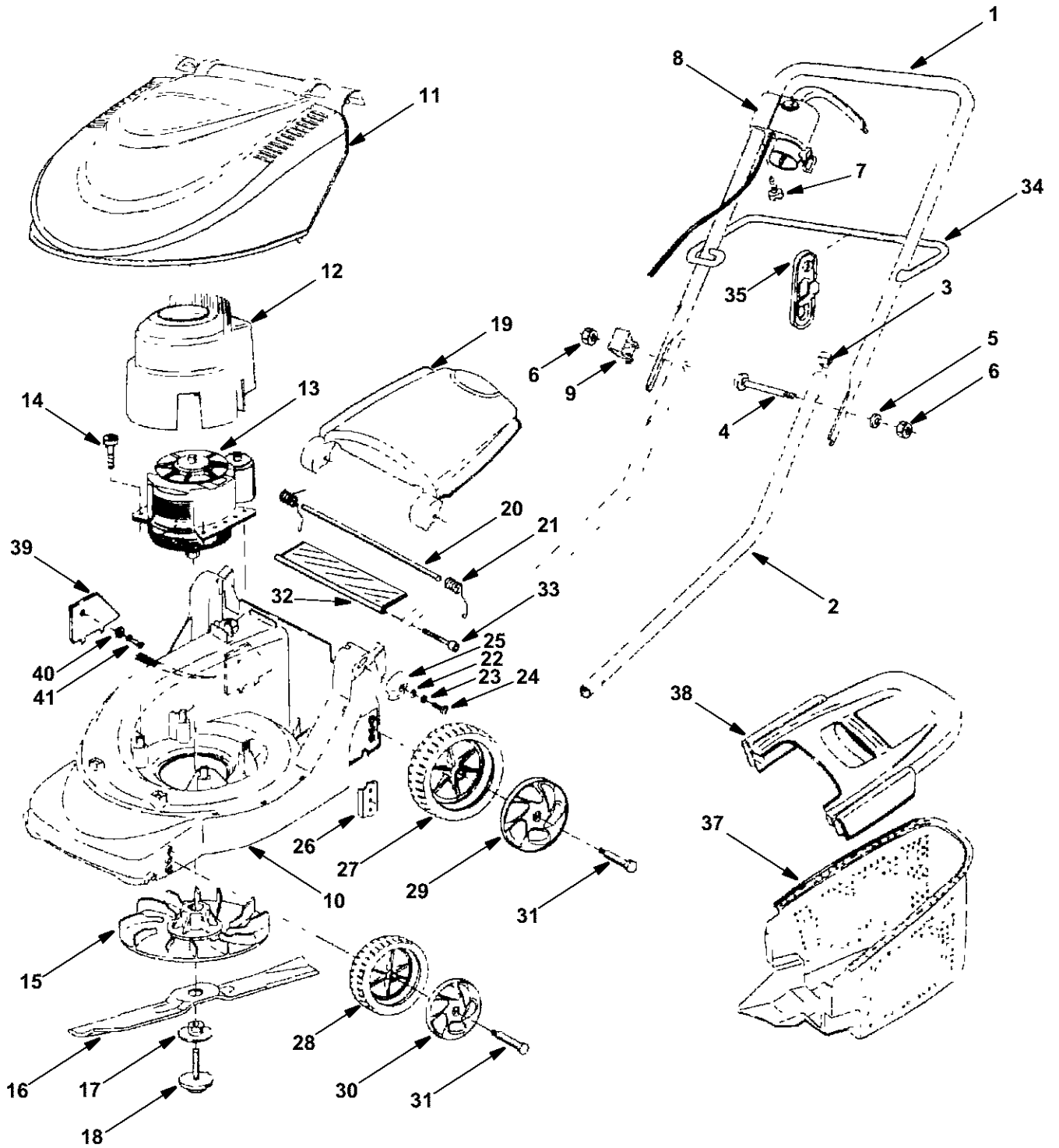
The following steps should be taken to prepare the lawn mower for storage.

- Make certain the power supply is disconnected.
- Clean mower as instructed in previous section.
- Inspect and replace/sharpen blade if required. Refer to Cutting Blade section on page 13.
- Lubricate mower following instructions on page 14.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer and rock salt.
- Wipe extension cord to remove any foreign substance such as oil or stains. Replace extension cord if cut or damaged in any way.
- Wind cord in a series of equal loops on each side of your hand to prevent snarling.
- Store mower indoors, in a cool, dry place, out of reach of children. Do not cover lawn mower with a solid plastic sheet. Any plastic covering traps moisture around the mower which promote rust and corrosion.

SECTION 9: TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Mower not starting.	Cord disconnected from the motor/ blade control.	Reconnect the cord keeping the cord restraint close to the motor/blade control.
	Motor/blade control switch defective.	Replace motor/blade control switch.
	Extension cord not connected to a source of power.	Connect the extension cord to a 110-120 volt 60 cycle A.C. receptacle.
	Circuit breaker on the mower or in the house receptacle tripped.	Reset the circuit breaker following instructions in the Maintenance section of this manual.
Circuit breaker on the mower tripping.	Too much workload on the mower.	Raise the cutting height, reset the circuit breaker on the mower, take a smaller width of cut, and walk slowly.
	Fuse blown; outlet overloaded.	Connect to an outlet that is fused for 15 amperes. Reset the circuit breaker and start the mower again.
Mower cutting grass unevenly.	Lawn rough or uneven.	Move the wheels to a higher cutting height position.
	Cutting height not set properly.	All wheels must be placed in the same cutting height for the mower to cut evenly.
Hard to push.	High grass or cutting height too low.	Raise cutting height.
	Rear of mower housing and blade dragging in heavy grass.	Raise cutting height.
Mower vibrating at higher speed.	Bent motor shaft.	Stop the motor, disconnect the power source and inspect for damage. Repair before restarting. If vibration persists, take it to a service dealer.
	Blade is unbalanced.	Balance the blade by grinding each cutting edge equally.
Cord disconnects frequently.	Extension cord is not properly attached to the cord restraint.	Reconnect the extension cord to the cord restraint on the guide rod.
	Old, worn, or loose extension cord.	Replace extension cord.

SECTION 10: PARTS LIST



REF. NO.	PART NO.	DESCRIPTION
1	749-1042A	Upper Handle
2	749-1312	Lower Handle
3	720-0369	Handle Plug
4	710-1718	Handle Bolt
5	736-0649	Lock Washer
6	712-0690	Hex Nut
7	710-1757	Screw
8	725-04075	Motor / Blade Control Switch
9	731-2427	Cord Insulator
10	731-2421-0638	Mower Housing (Incl. Ref# 39-41)
11	731-2088A-0637	Electric Motor Cover
12	731-2224	Air Guide Pot
13	724-0310	Electric Motor
14	710-1756	Screw
15	631-0148	Blade Hub Assembly
16	742-0804	Cutting Blade
17	731-1961	Lock Washer
18	624-0077	Blade Bolt
19	731-1971A-0637	Rear Discharge Door
20	747-1072	Rod
21	732-0912	Spring
22	736-0697	Washer
23	736-0698	Lock Washer
24	710-1350	Screw
25	731-1805-0638	Cap
26	782-0609	Holder Plate
27	734-1884-0637	Rear Wheel
28	734-1885-0637	Front Wheel
29	720-0343-0637	Rear Wheel Cap
30	720-0342-0637	Front Wheel Cap
31	738-1031	Axle Bolt
32	731-2402	Rear Trailing Shield
33	710-1758	Screw
34	747-1010	Guide Rod
35	726-0368-0637	Cable Clamp
37	731-1968-0637	Grass Bag
38	731-2426-0637	Grass Bag Cover
39	782-9095-0638	Protection Plate
40	736-0766	Washer
41	728-0286	Rivet

NOTES

NOTES

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by MTD LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

MTD LLC warrants this product against defects for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by MTD LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear parts or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered ONLY IF caused by defects in materials or workmanship of OTHER component parts. Normal wear parts and components include, but are not limited to: batteries, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates, auger spiral rubber, and tires.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE, through your local authorized service dealer. To locate the dealer in your area, check your Yellow Pages, or contact MTD LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-800-345-TRIM (8746) or 1-330-558-7210 or log on to our Web site at www.ryobioutdoor.com.

This limited warranty does not provide coverage in the following cases:

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Refer to applicable manufacturer's warranty for terms and conditions.
- b. Log splitter pumps, valves, and cylinders have a separate one year warranty.
- c. Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.
- d. MTD LLC does not extend any warranty for products sold or exported outside of the United States, its possessions and territories, except those sold through MTD LLC's authorized channels of export distribution.
- e. Parts that are not genuine MTD parts are not covered by this warranty.
- f. Service completed by someone other than an authorized service dealer is not covered by this warranty.
- g. Transportation charges and service calls are not covered.

No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind MTD LLC. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.

The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. MTD LLC shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

HOW STATE LAW RELATES TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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