



Owner's Manual

◆ SET-UP ◆ OPERATION ◆ MAINTENANCE



IMPORTANT: Read Safety Rules and Instructions Carefully

CALLING CUSTOMER SUPPORT

- **LOCATE YOUR MODEL NUMBER AND SERIAL NUMBER** which appears on your unit and record the information in the space provided below.

IMPORTANT: You must have these numbers, along with the date and proof of purchase to receive warranty or service.

- If you are having difficulty assembling this product or if you have any questions regarding the controls, operation or maintenance of this unit, please call an authorized dealer.
- Please have your model number and serial number ready when you call.

NOTE: Although both numbers are important, you will be asked to enter only your serial number before your call can be processed.

Model Number Numéro de modèle	Serial Number Numéro de série
XXX-XXXXXX	XXXXXXXXXX
TROY-BILT TROYBILT - CANADA KITCHENER, ON N2G 4J1	

— This is where your model number will be, record model number here:

— This is where your serial number will be, record serial number here:


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This unit has been inspected against the manufacturers quality check list. In case of a discrepancy, please call us. We will make every effort to ship the part(s) by courier within one working day of your call.

IMPORTANT SAFE OPERATION PRACTICES



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.

GENERAL OPERATION

- Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
- 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.
- Never allow adults to operate this machine without proper instruction.
- To help avoid blade contact or a thrown object injury, keep bystanders, helpers, children and pets at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
- 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 picked up and thrown by the blade. Thrown objects can cause serious personal injury.
- 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.
- Always wear safety glasses or safety goggles during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
- Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Shirts and pants that cover the arms and legs and steel-toed shoes are recommended. Never operate this machine in bare feet, sandals, slippery or light weight (e.g. canvas) shoes.
- Many injuries occur as a result of the mower being pulled over the foot during a fall caused by slipping or tripping. Do not hold on to the mower if you are falling; release the handle immediately.
- 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:
 - a) Step back from the mower to fully extend your arms.
 - b) Be sure you are well balanced with sure footing.
 - c) Pull the mower back slowly, no more than half way toward you.
 - d) Repeat these steps as needed.
- Do not operate the mower while under the influence of alcohol or drugs.
- Do not put hands or feet near rotating parts or under the cutting deck. Contact with the blade can amputate hands and feet.
- A missing or damaged discharge cover can cause blade contact or thrown object injuries.
- Do not engage the self-propelled mechanism on units so equipped while starting engine.
- Never attempt to make a wheel or cutting height adjustment while the engine is running.
- The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inopera-

tive and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions and automatically return to the disengaged position when released.

- Never operate the mower in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. If you feel you are losing your footing, release the blade control handle immediately and the blade will stop rotating within three seconds.
- Mow only in daylight or in good artificial light. Walk, never run.
- Stop the blade when crossing gravel drives, walks or roads.
- If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Shut the engine off 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 engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
- Never operate mower without proper trail shield, discharge cover, grass catcher, blade control handle 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.
- Muffler and engine become hot and can cause a burn. Do not touch.
- Only use parts and accessories made for this machine by the manufacturer. Failure to do so, can result in personal injury.
- If situations occur which are not covered in this manual, use care and good judgment. Contact your customer support department.

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:

- Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes. Watch for holes, ruts, bumps, rocks, or other hidden objects which can cause you to slip or trip. Tall grass can hide obstacles. 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 blade control handle immediately, and the blade will stop rotating within 3 seconds.

DO NOT:

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

CHILDREN

- 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.
 - a) Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator.
 - b) Be alert and turn mower off if a child enters the area.
 - c) Before and while moving backwards, look behind and down for small children.
 - d) 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.
 - e) Keep children away from hot or running engines. They can suffer burns from a hot muffler.
 - 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 SAFE HANDLING OF GASOLINE:**
- To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself

or your clothes which can ignite. Wash your skin and change clothes immediately.

- a) Use only an approved gasoline container.
- b) Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.
- c) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- d) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- e) Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- f) Never fuel machine indoors.
- g) Never remove gas cap or add fuel while the engine is hot or running. Allow engine to cool at least two minutes before refueling.
- h) Never over fill fuel tank. Fill tank to no more than $\frac{1}{2}$ inch below bottom of filler neck to provide space for fuel expansion.
- i) Replace gasoline cap and tighten securely.
- j) If gasoline is spilled, wipe it off the engine and equipment. Move unit to another area. Wait 5 minutes before starting the engine.
- k) Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
- l) To reduce fire hazard, keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel soaked debris.
- m) Allow machine to cool at least 5 minutes before storing.

GENERAL SERVICE:

- Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
- Before cleaning, repairing, or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.
- Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., bent, cracked, worn) Replace blade with the original equipment manufacturer's (O.E.M.) blade only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- After striking a foreign object, stop the engine, disconnect the spark plug wire and ground against the engine. Thoroughly inspect the mower for any damage. Repair the damage before starting and operating the mower.
- 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 (O.E.M.) parts only, listed in this manual. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
- Do not change the engine governor setting or overspeed the engine. The governor controls the maximum safe operating speed of the engine.
- Maintain or replace safety and instruction labels, as necessary.
- Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment.

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OWNER'S
MANUAL



SAFETY LABEL



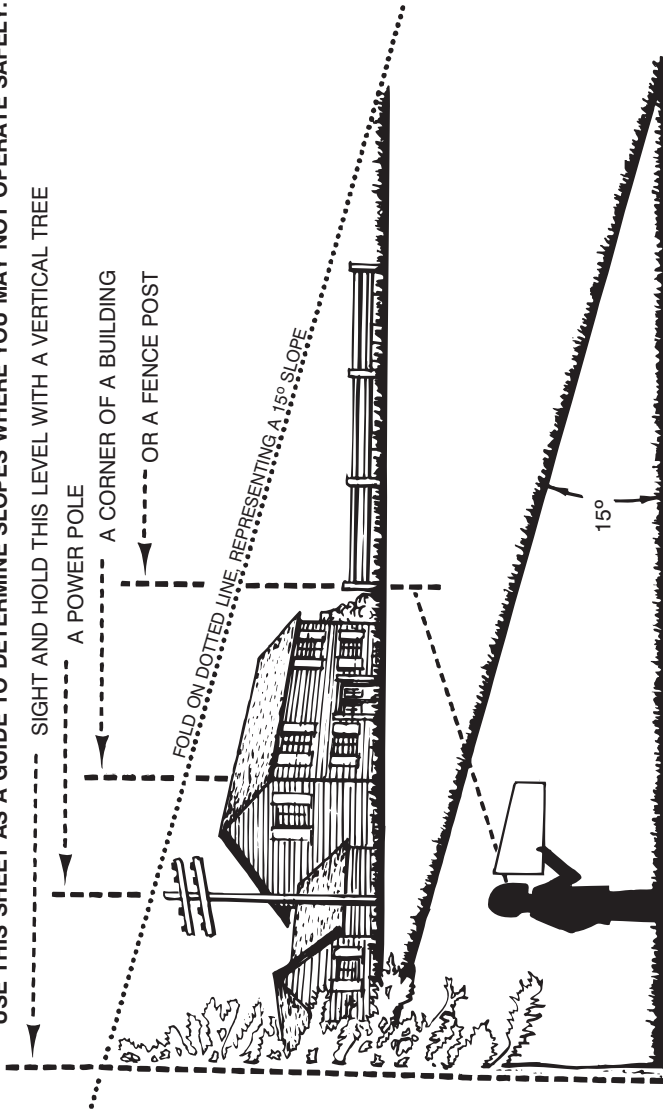
WARNING - Your Responsibility:

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.

SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)

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



⚠ DANGER

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ 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.

SET-UP INSTRUCTIONS

This unit is shipped **WITHOUT GASOLINE or OIL**. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

NOTE: Reference to right or left hand side of the mower is observed from the operating position.

- Disconnect the spark plug wire and ground move it as instructed in the separate engine manual packed with your unit.
- Remove the carton inserts (if any). Remove the loose parts which are in the carton, lift the mower from the carton, or cut the corners of the carton and roll the mower out.
- Pull up and back on the upper handle to raise the handle into the operating position. Make certain the lower handle is seated securely into the handle mounting brackets. Tighten the large wing nuts on each side of

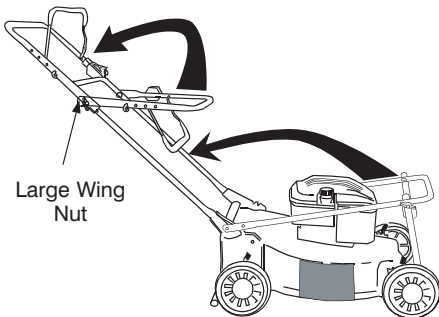


Figure 1

the handle. See Figure 1.

NOTE: Your mower is shipped with the handle in the higher position. If you wish to lower the height of the handle, refer to the Adjustment Section.

- Remove the hairpin clips from the outer hole in the weld pins on the handle mounting brackets. Place the hairpin clips in the inner hole. See Figures 2 and 3.
- Place one carriage bolt (found in the hardware pack included with your unit) in the upper hole of the right handle mounting bracket from the inside outward. See Figures 2 and 3. Secure with one wing nut. Repeat process on the left side.
- The rope guide and wing nut are attached to the starter rope, on top of the engine. Re-

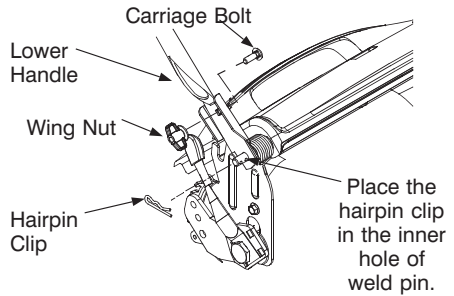


Figure 2- For models with 8" rear wheels.

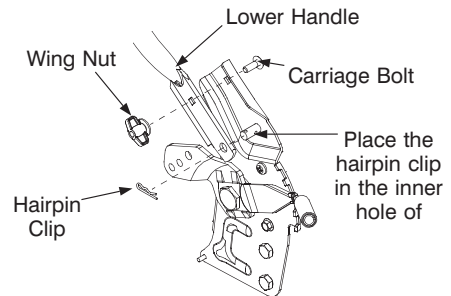


Figure 3 - For models with 12" rear wheels.

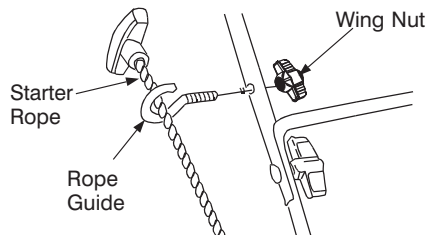


Figure 4

move the wing nut from rope guide. Remove the rope guide from the starter rope. See Figure 4.

- With the spark plug wire disconnected and grounded, hold the blade control handle against the upper handle, and pull the starter rope out of the engine. Hold the rope guide as shown so the opening in the rope guide is toward the front of mower. Slip the rope guide around the starter rope and into the right side of lower handle using the hole shown. Secure using the wing nut.

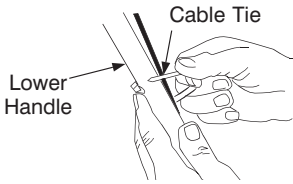


Figure 5

- Fasten the cable to the lower handle with the cable ties found on the lower handle. Pull the cable ties tight and trim off the excess. See Figure 5.
- Make certain all nuts and bolts are tightened securely.

ASSEMBLY OF GRASS CATCHER

NOTE: If your mower's grass catcher is assembled, proceed to the next section. If not, follow these steps.

Soft Grass Bag

NOTE: Make certain the grass bag is turned right side out before assembling (warning label will be on the outside).

- Place bag over frame (black plastic side is the bottom of bag.) Insert the hooks on the frame through the holes in the side plastic channels of the bag. See Figure 6.
- Secure bag to frame by working the plastic channels on bag over frame as shown in Figure 6. All of the plastic channels except center top of bag attach from the outside of bag. Center top of bag attaches from the inside of bag.

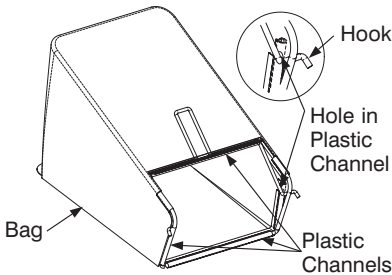


Figure 6

ATTACHING GRASS CATCHER TO MOWER

- Lift the rear discharge door on the mower, and place the grass catcher on the pivot rod. Let go of discharge door so that it rests on the grass catcher. See Figure 7.

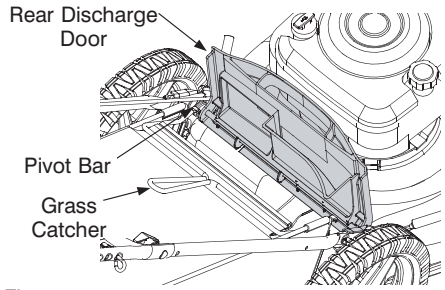


Figure 7

NOTE: Make certain cables are routed to the outside of the handle so they are not in the way when attaching the grass catcher.

TO REMOVE THE GRASS CATCHER

- Lift the rear discharge door on the mower as shown in Figure 7. Lift the grass catcher up and off the pivot bar. Release the rear discharge door.



WARNING: Never operate the mower unless the hooks on the grass catcher are seated on the pivot bar, and the rear discharge door rests firmly against the top of the grass catcher.

CONVERTING TO SIDE DISCHARGE

If your unit is equipped with a side discharge deflector, you can convert to a side discharge mower as follows:

- Remove the grass catcher as previously described.
- On the side of the mower deck, lift the hinged mulching plug. See Figure 8.
- Slide the two hooks on the side discharge deflector under the hinge pin on the hinged mulching plug assembly.
- Lower the hinged mulching plug.

NOTE: Do not remove the hinged mulching plug at any time, even when you are not mulching.



WARNING: All mowers are equipped with a rear protective guard. The guard helps eliminate projectiles thrown by the blade from injuring the operator. **DO NOT REMOVE THIS GUARD.**

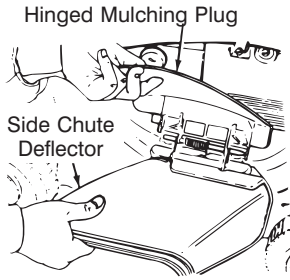


Figure 8

OPERATION

BEFORE STARTING

Service the engine with gasoline and oil as instructed in the separate engine manual packed in your mower. Read instructions carefully.



WARNING: Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

MODELS WITH ELECTRIC START ONLY:



WARNING: The battery contains corrosive fluid and toxic material. **HANDLE WITH CARE.** Keep away from children. Do not puncture, disassemble, mutilate or incinerate. Explosive gases could be vented during charging or discharging. Use in a well-ventilated area, away from sources of ignition.

- Charge battery for 16 hours before initial use. **DO NOT CHARGE LONGER THAN 20 HOURS.**

IMPORTANT: Use only the battery charger supplied with this mower.

To charge the battery, first remove the protective cap from the end of the battery pack lead. Always plug charger lead into battery pack lead before inserting battery charger plug into 120 volt standard household outlet. See Figure 9.

After charging, disconnect battery charger plug from household outlet first, then disconnect charger lead from battery pack lead.



WARNING: Do not remove the battery pack from the handle panel for any reason other than replacement. When replacing the battery pack, refer to instructions in Maintenance section.

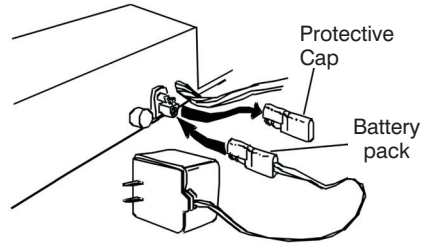


Figure 9

TO START ENGINE (all models)

- Attach spark plug wire to spark plug. If unit is equipped with a rubber boot over the end of the spark plug wire, make certain the metal loop on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug. See Figure 10.

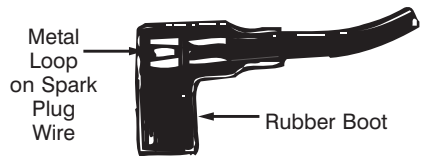


Figure 10

- If your unit is equipped with a primer, prime engine as instructed in the separate engine manual packed with your unit.
- If your unit is equipped with a two speed control on the engine refer to the separate engine manual packed with your unit.
- Standing behind the unit, depress the blade control handle and hold it against the upper handle as shown in Figures 11 and 12.

ELECTRIC START MODELS ONLY:

- Turn the ignition key to the right to start the engine. Release the key after engine starts. See Figure 11.

NOTE: The engine on your unit is provided with an auxiliary recoil starter system. To start the engine using the auxiliary start system, proceed as follows for recoil start models:

RECOIL START MODELS ONLY:

- Grasp the recoil starter handle as shown and pull slowly until resistance is felt, then pull rapidly to start engine and avoid kickback. Return it slowly to the rope guide bolt. See Figure 12.

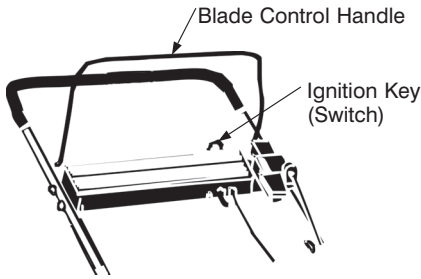


Figure 11-(Electric Start Units Only)

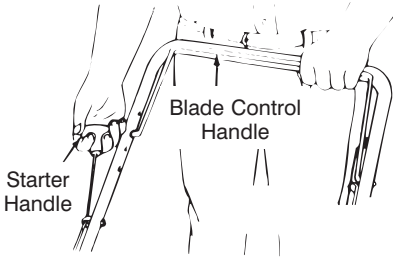


Figure 12

- The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and blade.



WARNING: THIS CONTROL MECHANISM IS A SAFETY DEVICE. NEVER ATTEMPT TO BYPASS ITS OPERATIONS.

TO STOP ENGINE :

- Release the blade control handle to stop the engine and blade.



WARNING: The blade continues to rotate for a few seconds after the engine is shut off.

- Disconnect and ground the spark plug wire as instructed in the separate engine manual to prevent accidental starting while equipment is unattended.

USING YOUR MULCHER (Optional)

Mulching mowers use a specially designed blade to chop the grass clippings extra fine and then blow them back down into the lawn. The small clippings decompose quickly becoming a natural fertilizer that returns much of the needed nutrients to the soil. Continuous mulching means continuous free natural fertilization, no messy clippings to worry about ever again and the end result for you is a much greener healthier lawn.



WARNING: Your mower is designed to cut normal residential grass of a height no more than 10". Do not attempt to mow through unusually tall, dry grass (e.g., pasture) or piles of dry leaves. Debris may build up on the mower deck or contact the engine exhaust presenting a potential fire hazard.

FOR THE BEST RESULTS WHEN MULCHING:

- **Clear lawn of debris.** Be sure that the lawn is clear of stones, sticks, wire or other foreign objects which could damage the lawnmower. Such objects could be accidentally thrown out by the mower in any direction and cause serious personal injury to the operator and others as well as damage to property and surrounding objects.
- **Do not cut wet grass.** For effective mulching do not cut wet grass because it tends to stick to the underside of the deck preventing proper mulching of the grass clippings.
- **Cut no more than 1/3 the length of the grass.** The recommended cut for mulching is 1/3 the length of the grass. Ground speed will need to be adjusted so the clippings can be dispersed evenly into the lawn. For especially heavy cutting in thick grass it may be necessary to use one of the slowest speeds in order to get a clean well mulched cut. When mulching long grass you may have to cut the lawn in two passes, lowering the blade another 1/3 of the length for the second cut and perhaps cutting in a different pattern than was used the first time. Overlapping the cut a little on each pass will also help to clean up any stray clippings left on the lawn. The mower should always be operated at full throttle to get the best cut and allow it to do the most effective job of mulching.
- **Clean underside of deck.** Be certain to clean the underside of the cutting deck after each use to avoid a build-up of grass, which would prevent proper mulching.
- **Mulching Leaves.** The mulching of leaves can also be beneficial to your lawn. When mulching leaves make sure they are dry and are not laying too thick on the lawn. Do not wait for all the leaves to be off the trees before you mulch.
- It is recommended keeping driveways and sidewalks on the operators right while moving. Continue mowing using this pattern, having the left side of your lawnmower next to the uncut grass. Mulching with the cutting area of the mower on the lawn avoids grass clippings in undesirable areas.



WARNING: If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

ADJUSTMENTS

CAUTION: DO NOT AT ANY TIME MAKE ANY ADJUSTMENT TO LAWNMOWER WITHOUT FIRST STOPPING THE ENGINE AND DISCONNECTING THE SPARK PLUG WIRE .

CAUTION: Before changing mowing height, stop mower and disconnect spark plug cable.

MODELS WITH NINE POSITION HEIGHT ADJUSTERS: (See Figure 13).

- Stop mower and disconnect spark plug cable before changing mower cutting height.
- The wheel adjusters give you nine (9) different cutting positions. Medium is the best for most mowers.
- To change the height of cut, squeeze adjuster lever toward the wheel, moving up or down to selected height.



Figure 13

NOTE: All wheels must be in the same height of cut.

- When cutting in heavy or moist grass, the rear of lawnmower may be raised higher to allow better discharge of the grass.

CARBURETOR ADJUSTMENT

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. Refer to the separate engine manual packed with your mower for carburetor adjustment information.

HANDLE HEIGHT ADJUSTMENT

To lower the handle height, proceed as follows:

- Remove the starter rope and the rope guide.

- Remove the upper handle by removing the wing nuts and carriage bolts. Lay the upper handle out of the way, being careful not to bend or kink the cables.
- Remove the hardware securing the lower handle to handle brackets. Press out on the legs of the lower handle. Remove lower handle from the mower.
- Turn the lower handle around so the notch on the bottom of the lower handle is facing forward as shown in Figure 14. Reassemble, placing the bottom holes in the handle over the weld pins in the handle mounting bracket.
- Secure with hardware previously removed being careful to put the hairpin clip in the inner hole on the weld pin as instructed in the "Set-Up" section of this manual.
- Reassemble the upper handle to the lower handle.
- Attach the starter rope and rope guide as instructed in the "Set-Up" section of this manual.

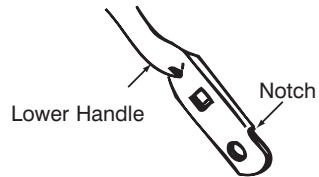


Figure 14

LUBRICATION

CAUTION: DISCONNECT SPARK PLUG WIRE BEFORE SERVICING.

WHEELS - If your mower is equipped with ball bearing wheels, lubricate at least once a season with a light oil, all other types require no lubrication. However, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light automotive oil.

ENGINE - Follow engine manual for lubrication instructions.

BLADE CONTROL - Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. The blade control must operate freely in both directions.

MAINTENANCE

CUTTING BLADE



WARNING: Be sure to disconnect and ground the spark plug wire before working on the cutting blade to prevent accidental engine starting. Protect hands by using heavy gloves or a rag to grasp the cutting blade.

- Tip mower as specified in separate engine manual. If it is not specified tip with carburetor up.
- Remove the bolt and blade support which holds the blade and adapter to the engine crankshaft. Remove the blade and adapter from the crankshaft. See Figure 13.



WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

For best results your blade should be sharp. The blade may be resharpened by removing it and either grinding or filing the cutting edge keeping as close to the original bevel as possible. **It is extremely important that each cutting edge receives an equal amount of grinding** to prevent an unbalanced blade. Improper blade balance will result in excessive vibration causing eventual damage to the engine and mower. Be sure to carefully balance blade after sharpening. The blade can be tested for balance by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil. Install the blade adapter on the crankshaft with the "star" away from the engine. Refer to Figure 15. Place the blade with the side marked bottom (or with part number) facing away from the adapter. Align the blade bell support over the blade with the tabs in the holes of the blade and insert the hex bolt. Tighten the hex bolt to the torque listed below:

Blade Mounting Torque

Center Bolt 450 in. lb. min., 600 in.lb. max.

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

CAUTION: Cutting grass in sandy soil condition causes abrasive wear to the blade.

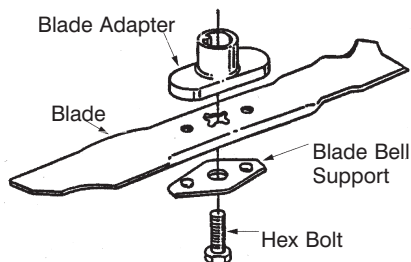


Figure 15

After prolonged use, especially in sandy soil conditions, the blade will become worn and lose some of the original shape. Cutting efficiency will be reduced and the blade should be replaced. Replace with an approved factory replacement blade only. Possible damage resulting from blade unbalance condition is not the responsibility of the manufacturer.

DECK

The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may prevent proper mulching.

The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

NOTE: We do not recommend the use of pressure washers or garden hose to clean your unit. These may cause damage to electric components, spindles, pulleys, bearings, or the engine. The use of water will result in shortened life and reduce serviceability.

ENGINE

Refer to the separate engine manual for engine maintenance instructions.

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Under normal conditions service **air cleaner** as instructed in the separate engine manual packed with your unit. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.

NOTE: *This spark ignition system meets all requirements of the Canadian Interference-Causing Equipment Regulations.*

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area. **BATTERY PACK REPLACEMENT** (Electric start Models Only)

Remove the battery pack from the handle panel for replacement only. Do not separate the batteries for any reason. Dispose of batteries properly.



WARNING: Batteries contain sulfuric acid which may cause burns. Do not short circuit or mutilate in any way. Do not put batteries in fire. They may burst or release toxic material.

When replacing battery pack in handle panel, battery pack must be positioned with the positive terminal to the right hand side and the negative terminal to the left hand side of panel. See Figure 16. Replacing the battery pack incorrectly will cause serious damage.

The positive lead on the wire harness has the smaller connector. Connect the positive lead to the positive side of the battery pack, then connect the negative side.

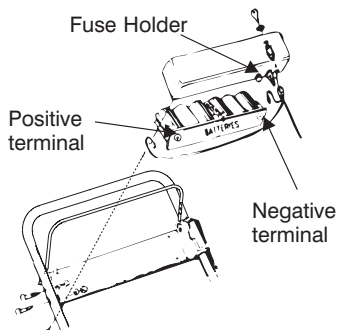


Figure 16

IN-LINE FUSE

The unit is equipped with an in-line fuse. If unit fails to start, check the fuse inside the battery cover by turning the end of the fuse holder and removing from the battery cover. Replace with standard automotive 7-1/2 amp fuse.

OFF SEASON STORAGE INSTRUCTIONS

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

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Store mower in a dry, clean area.

STORAGE OF THE BATTERY

The battery must be stored with a full charge. A discharge battery will freeze.

IMPORTANT: All batteries discharge during storage.

Recharge battery every two months and before returning to service. Refer to charging instructions on page 9.

NOTE: *When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.*

CAUTION: Never fold or unfold handle without disconnecting spark plug.

NOTE: *Be careful not to bend or kink cables.*

NOTE: *If the starter rope becomes disconnected from rope guide on handle, disconnect and ground the spark plug wire. Depress the bail and pull the starter rope out from engine slowly. Slip the starter rope into the rope guide bolt on handle.*

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Engine fails to start	<ol style="list-style-type: none"> 1. Blade control handle disengaged. 2. Spark plug wire disconnected. 3. Fuel tank empty, or stale fuel. 4. Blocked fuel line. 5. Faulty spark plug. 6. Engine flooded. 	<ol style="list-style-type: none"> 1. Engage blade control handle. 2. Connect spark plug wire. 3. Fill tank with clean, fresh gasoline. 4. Clean the fuel line. 5. Clean, adjust gap or replace. 6. Wait a few minutes to restart, but do not prime.
Engine runs erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Blocked fuel line or stale fuel. 3. Vent in gas plugged. 4. Water or dirt in fuel system. 5. Dirty air cleaner. 6. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Clean the fuel line; fill the tank with clean, fresh gasoline. 3. Clear vent. 4. Drain the fuel tank and carburetor. Refill with fresh fuel. 5. Clean air cleaner. 6. Adjust carburetor.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Air flow restricted. 3. Carburetor not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Remove blower housing and clean. 3. Adjust carburetor.
Idles poorly	<ol style="list-style-type: none"> 1. Spark plug fouled, faulty or gap too wide. 2. Carburetor improperly adjusted. 3. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Reset gap to .030" or replace spark plug. 2. Adjust carburetor. 3. Clean air cleaner.
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced. 2. Bent cutting blade. 	<ol style="list-style-type: none"> 1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not mulch grass	<ol style="list-style-type: none"> 1. Wet grass. 2. Excessively high grass. 3. Dull blade. 	<ol style="list-style-type: none"> 1. Do not mow when grass is wet; wait until later to cut. 2. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting path. 3. Sharpen or replace blade.
Uneven cut	<ol style="list-style-type: none"> 1. Wheels not positioned correctly. 2. Dull blade. 	<ol style="list-style-type: none"> 1. Place all four wheels in same height position. 2. Sharpen or replace blade.
Wheels will not propel	<ol style="list-style-type: none"> 1. Belt not installed properly. 2. Debris clogging drive operation. 	<ol style="list-style-type: none"> 1. Check belt for proper pulley installation and movement. 2. Clean out debris.

NOTE: For repairs beyond the minor adjustments listed above, contract your nearest authorized service dealer.

THREE (3) YEAR LIMITED WARRANTY

For three (3) years from the date of original purchase of our products, we will either repair or replace, at its option, free of charge, F.O.B. Factory or authorized service firm, any part found to be DEFECTIVE IN MATERIAL and WORKMANSHIP for the original purchaser. all transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser unless return is requested by the manufacturer.

This warranty DOES NOT apply to any part which has become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons.

The limited warranty does not extend to the replacement of parts which are not defective, but where regular usage has exhausted the life of the part.

ENGINES, ELECTRIC START KITS, PEERLESS TRANSMISSIONS AND PEERLESS TRANSAXLES ARE WARRANTED BY THEIR RESPECTIVE MANUFACTURER. ALL CLAIMS AGAINST THESE COMPONENTS MUST BE HANDLED THROUGH THE RESPECTIVE MANUFACTURER'S SERVICE DEALERS.

Belts, light bulbs, clutch parts (friction wheels), grass bags, tires, seats, rider deck wheels and cutting blades are covered by a 60 day limited warranty.

Batteries are covered by a 90 day limited warranty.

Fuses, shear bolts and blade adapters are considered consumable items and as such are not warranted.

NOTE: Regular maintenance replacement parts and related inspections and adjustments are excluded from coverage when made as part of normal maintenance service.

TRACTOR ATTACHMENT WARRANTY

Mower decks included with your product, or sold separately, as an attachment for your garden tractors will be warranted according to the above terms of the manufacturer three (3) year limited consumer warranty.

ALL OTHER ATTACHMENTS will be sold under the same condition as above except the warranty will be ONE YEAR FROM DATE OF ORIGINAL PURCHASE.

PERSONAL USE

THE FOREGOING PARAGRAPHS CONSTITUTE THE MANUFACTURER'S ENTIRE WARRANTY WITH RESPECT TO ANY PRODUCT PURCHASED AND USED FOR PERSONAL FAMILY, HOUSEHOLD/RESIDENTIAL PURPOSES, AS DISTINGUISHED FROM COMMERCIAL USAGE.

COMMERCIAL USE

ALL APPLICATIONS OTHER THAN PERSONAL USE AS OUTLINED ABOVE, ARE CONSIDERED COMMERCIAL USAGE.

New products purchased for commercial usage are warranted in the same manner and to the same extent EXCEPT the term of warranty will be 60 DAYS from date of purchase.

WARRANTY SERVICE CAN ONLY BE PERFORMED BY AN AUTHORIZED SERVICE DEALER. ANY NON-ORIGINAL EQUIPMENT REPLACEMENT PART USED ON OR IN A PRODUCT UNDER WARRANTY WILL BE EXCLUDED FROM THAT WARRANTY COVERAGE, AS WILL BE ANY RELATED DAMAGED COMPONENTS RESULTING FROM THE INSTALLATION OF A REPLACEMENT PART FROM ANOTHER SOURCE OTHER THAN THE MANUFACTURER.