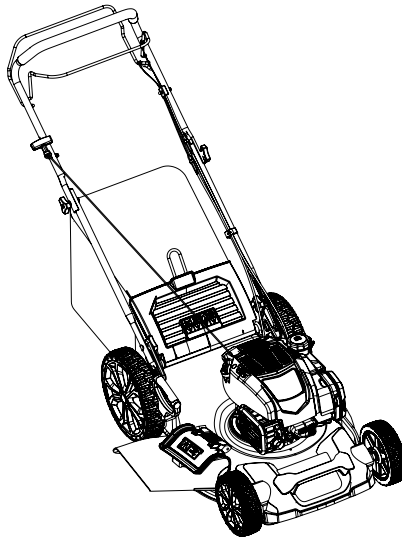


BENCHMARK

®

163CC 3-IN-1 LAWN MOWER OWNER'S MANUAL



**READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.**



**WEAR CSA APPROVED
EYE PROTECTION**



**WEAR EAR
PROTECTION**



**WEAR A
FACE MASK**

PRODUCT SPECIFICATIONS

Gasoline capacity and type:	Unleaded regular (maximum 10% ethanol)
Oil type (API: SG-SL):	SAE 30 (above 32°F/0°C) SAE 10W-30 (below 32°F/0°C)
Oil capacity:	See engine manual for more information
Spark plug:	See engine manual
Blade bolt torque:	Std hex = 33-40 ft-lb. (45-55 Nm)

IMPORTANT NOTE: Gasoline containing up to 10% ethanol (E10) is acceptable for use in this machine. The use of ANY gasoline exceeding 10% ethanol (E10) violates federal law and will void the product warranty.

START-UP CHECKLIST

Before you start up your new mower, we wish to ensure that you receive the best performance and satisfaction from this quality product.

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- All assembly instructions have been completed.
- No remaining loose parts in the carton.
- Before starting to mow, make sure the area is clear of debris or objects that may be thrown by the blades.
- Check the engine oil level before starting the machine.
- Ensure a responsible adult, other than the operator, is supervising children in a safe location **AWAY FROM THE MOWING AREA** before starting the mower.
- Be sure the Operator Presence Control (OPC) is working properly.

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PLEASE READ AND RETAIN THIS INSTRUCTION MANUAL. These instructions will enable you to assemble and maintain your lawn mower properly. ALWAYS observe the "SAFETY RULES".

The instruction manual was designed to conveniently help you get your purchase ready to use so there's less risk of damaging it and to provide you with enough information for you to get familiar with your product's controls and features to operate it safely. This manual however, is NOT a replacement for you reading your complete owner's manual and all the details it covers, such as mower maintenance, adjustments and storage.



KIDS AND MOWERS DON'T MIX! Tragic accidents can happen. You can SEVERELY INJURE or KILL a child with a lawn mower. Please leave children indoors and supervised!



CAUTION: The operation of any lawn mower can result in foreign objects thrown into the eyes, which can result in severe eye damage. ALWAYS wear safety glasses or eye shields while operating your lawn mower or performing any adjustments or repairs. We recommend standard safety glasses or a wide vision safety mask worn over spectacles.



Please read this manual carefully and make sure you understand the instructions before using the machine.

SAFETY

SAFE OPERATION PRACTICES FOR PEDESTRIAN CONTROLLED LAWN MOWERS



DANGER: THIS CUTTING 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.



WARNING: This mower is equipped with an internal combustion engine and should NOT be used on or near any unimproved forest-covered, brush-covered, or grass covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or provincial laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. A spark arrester for the muffler is available through your nearest authorized service centre/department.



CAUTION: Muffler and other engine parts become extremely hot during operation and remain hot after engine has stopped. To avoid severe burns on contact, stay away from these areas.

I. CHILDREN



WARNING: CHILDREN CAN BE SERIOUSLY INJURED OR KILLED BY THIS EQUIPMENT. Carefully read and follow all of the safety instructions below.

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

- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing up, look behind and down for small children.
- Use extra care when approaching blind corners, shrubs, trees or other objects that may block your view of a child.
- NEVER OPERATE THE MOWER WHEN CHILDREN ARE PRESENT.

II. SLOPE OPERATION

Slopes are a major factor related to slip and fall accidents which can result in severe

injury. All slopes require extra caution. If you feel uneasy on a slope, do not mow it.

- 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. Uneven terrain could cause a slip and fall accident. Tall grass can hide obstacles.
- DO NOT mow near drop-offs, ditches, or embankments. You could lose your footing or balance.
- DO NOT mow on wet grass or excessively steep slopes. Poor footing could cause a slip and fall accident.

III. GENERAL OPERATION

- Read, understand, and follow all instructions on the machine and in the instruction manual before starting.
- DO NOT put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Allow only responsible adults familiar with the instructions to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades. Stay behind the handles while the engine is running.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- DO NOT operate the mower when barefoot or while wearing sandals. ALWAYS wear substantial footwear.
- DO NOT pull mower backwards unless absolutely necessary. ALWAYS look down and behind before and while moving backwards.
- NEVER direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- DO NOT operate machine without the entire grass catcher, discharge chute or other safety devices in place and working.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.
- NEVER leave a running machine unattended.
- Stop the engine (motor) and wait until the blade comes to a complete stop before cleaning the mower, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- DO NOT operate the machine while under the influence of alcohol or drugs.
- NEVER operate machine in wet grass. ALWAYS be sure of your footing; keep a firm hold on the handle and walk; NEVER run.
- Disengage the drive system on mowers so it is equipped before starting the engine (motor).
- If the equipment should start to vibrate abnormally, stop the engine (motor) and check for the cause immediately. Vibration is generally a warning of trouble.
- ALWAYS wear eye protection when operating the machine.

IV. 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.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Use only an approved gasoline container.
- NEVER remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- NEVER fuel the machine indoors.
- NEVER store the machine or fuel container where there is an open flame, spark or pilot light such as on a water heater or other appliances.
- 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 when filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- 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.
- If fuel is spilled on clothing, change clothing immediately.
- NEVER overfill fuel tank. Replace gas cap and tighten securely.

GENERAL SERVICE

- NEVER operate machine in a closed area.
- Keep all nuts and bolts tight to ensure the equipment is in safe working condition.
- NEVER remove or tamper with any safety devices. Check their proper operation regularly. NEVER do anything to interfere with the function of a safety device or to reduce the protection offered by the safety device.
- Keep machine free of grass, leaves, or other debris buildup. Clean oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- NEVER attempt to make any adjustments or repairs while the engine (motor) is running. Disconnect the spark plug wire and ground against the engine to prevent unintended starting.
- Check grass catcher components and the discharge chute frequently, and replace with manufacturer's recommended parts when necessary.
- Mower blade is sharp. Wrap the blade or wear gloves and use extra caution when servicing it.
- DO NOT change the engine governor setting or over speed the engine.
- Maintain or replace safety and instruction labels as necessary.

SETUP

PREPARING THE ENGINE

- **IMPORTANT:** This lawn mower is shipped **WITHOUT OIL OR GASOLINE** in the engine.
- **NOTE:** Gasoline containing up to 10% ethanol (E10) is acceptable for use in this machine. The use of any gasoline exceeding 10% ethanol (E10) will void the product warranty.

V. CUSTOMER RESPONSIBILITIES

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your lawn mower.
- Wear proper personal protective equipment (PPE) while operating this machine, including (at a minimum) sturdy footwear, eye protection and hearing protection. **DO NOT** mow in shorts and/or open-toed footwear.
- **ALWAYS** let someone know you are outside mowing.
- **NEVER** allow children in the vicinity of any operating mower, even if the blades are off. Children should be under the supervision of a responsible adult other than the operator for the duration of the mowing operation.
- Follow the instructions under "Maintenance" section of the operator's manual.



CAUTION: An Operator Presence Control is installed on this lawn mower in order to minimize the risk of blade contact injury. DO NOT under any circumstances attempt to defeat the function of the operator control. The blade turns when the engine is running.

ASSEMBLY/ PRE-OPERATION



CAUTION: Read complete INSTRUCTION MANUAL before operating this machine.

IMPORTANT: THIS LAWN MOWER IS SHIPPED WITHOUT OIL OR GASOLINE IN THE ENGINE.

Your new lawn mower has been assembled at the factory with the exception of those parts left disassembled for shipping purposes. All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag. To ensure safe and proper operation of your lawn mower, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to ensure proper tightness.

SETUP

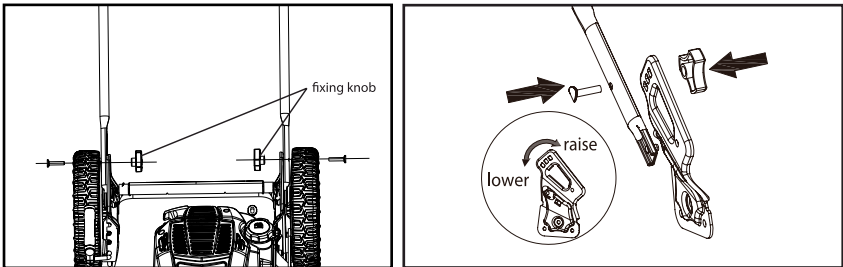
TO REMOVE LAWN MOWER FROM CARTON

1. Remove loose parts included with mower.
2. Cut down two end corners of carton and lay end panel down flat.

3. Remove all packing materials except padding between upper and lower handle and padding holding operator presence control bar to upper handle.
4. Roll lawn mower out of carton and check carton thoroughly for additional loose parts.

HOW TO SET UP YOUR LAWN MOWER

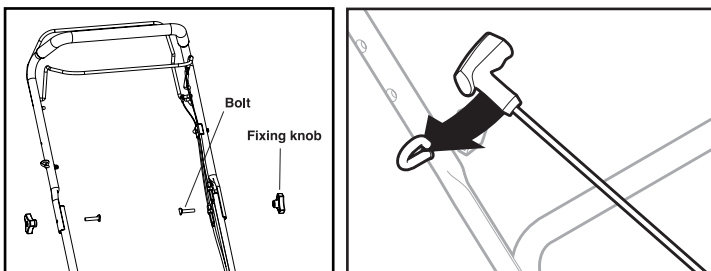
IMPORTANT: Unfold handle carefully to avoid pinching or damaging the control cables.



1. Insert the lower handle to the two side brackets on the mower deck. Use corresponding holes on the brackets when attaching lower handle pin for a suitable handle height desired.

NOTE: The washer should be pressed against the inner face of the bracket.

2. Fasten the lower handle to the lawn mower by using handle bolts, install and tighten knobs to secure the handle.



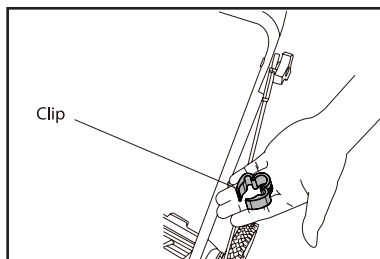
Raise the upper handle into place and attach it to lower handle by using handle bolts.

4. Install and tighten knobs to secure the handle.

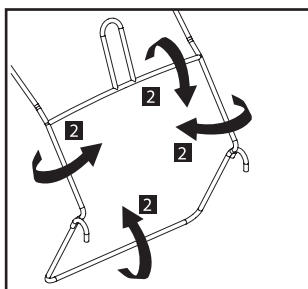
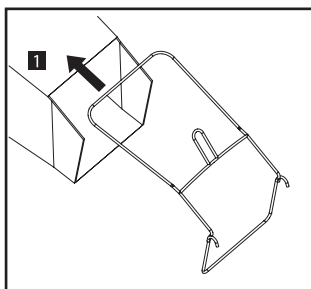
NOTE: Your lawn mower handle can be adjusted for your mowing comfort. Refer to the "TO ADJUST HANDLE" section of the operator's manual.

5. Slip starter rope into loop on upper handle.

6. Attach the connection cord to the handle with the cord clip (supplied).



TO ASSEMBLE THE GRASS CATCHER



1. Put the grass catcher frame into the grass bag with the rigid part of the bag on the bottom. Make sure the frame handle is outside of the bag top.
2. Slip the vinyl bindings over the frame.

ADD GASOLINE

Fill fuel tank to bottom of tank filler neck. **DO NOT** overfill. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane.

DO NOT mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.



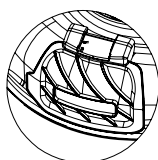
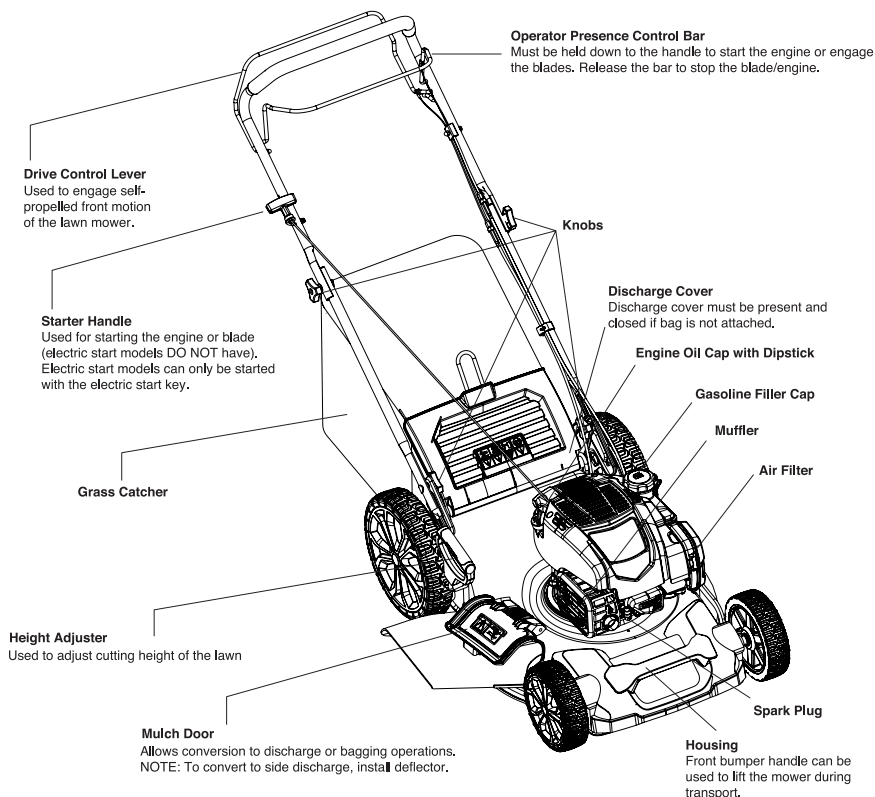
CAUTION: Wipe off any spilled oil or fuel. **DO NOT** store, spill or use gasoline near an open flame.

Alcohol-blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

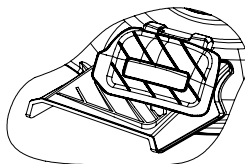
To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Empty the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. **NEVER** use engine or carburetor cleaner products or permanent damage may occur.

KNOW YOUR LAWN MOWER

Compare the illustrations with your lawn mower to familiarize yourself with the locations of various controls and adjustments. Save this instruction manual for future reference. Not every model of lawn mower will have all these features.



Mulch Door



Side Discharge Deflector

SYMBOLS

GENERAL IGNITION SWITCH	
	Oil
	Fuel
	Engine off
	Engine on

THROTTLE	
	Choke
	Fast
	Slow

SAFETY SYMBOLS

SAFETY	
	DANGER: KEEP HANDS AND FEET AWAY (See SAFETY section). *These symbols may appear on your lawn mower or in the literature supplied with the product. Learn and understand their meaning.
	HAZARD ALERT - The hazard alert symbol informs the user of potential hazards.
	READ THE OPERATOR'S MANUAL(S) - Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate.
	Wear hearing protection.
	DANGER — ROTATING BLADES - To reduce the risk of injury, keep hands and feet away. Do not operate unless discharge cover or grass catcher is in its proper place. If damaged, replace immediately.
	DANGER — BYSTANDERS - Do not mow when children or others are around.
	Look down and behind before and while backing up.
	DANGER — ROTATING BLADES - Never operate the machine without proper guards, plates, or other safety protective devices in place.
	DANGER — HAND/ FOOT CUT - Keep hands and feet away from rotating parts.
	DANGER — THROWN DEBRIS - Remove objects that can be thrown by the blade in any direction. Wear safety glasses.
	DANGER — SLOPES - Use extra caution on slopes. Do not mow slopes greater than 15°.
	WARNING — GASOLINE IS FLAMMABLE - Allow the engine to cool at least two minutes before refueling.
	WARNING — CARBON MONOXIDE - Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
	WARNING — HOT SURFACE - Engine parts, especially the muffler, become extremely hot during operation. Allow engine and muffler to cool before touching.

GLOSSARY OF SAFETY SYMBOLS

Failure to follow instructions could result in serious injury or death. The safety alert symbol is used to identify safety information about hazards which can result in death, serious injury and/or property damage.

	DANGER indicates a hazard which, if not avoided, WILL result in death or serious injury.
	WARNING indicates a hazard which, if not avoided, COULD result in death or serious injury.
	CAUTION indicates a hazard which, if not avoided, COULD result in minor or moderate injury.
	CAUTION when used without the alert symbol, indicates a situation that could result in damage to the lawn mower and/or engine.
	HOT SURFACES indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.
	FIRE indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

OPERATION

TO START THE ENGINE

NOTE: Due to protective coatings on the engine, a small amount of smoke may be present during the initial use of the lawn mower. This is normal.

NOTE: Your engine may be equipped with an automatic choke system. No priming or choking is required before starting for these models. On other models, either a choke lever or a priming bulb is provided. Use this to start a cold engine.

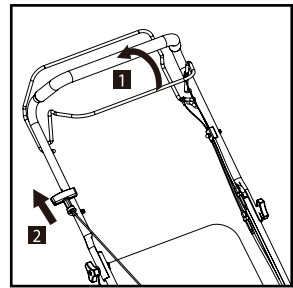
TO START THE ENGINE USING STARTER ROPE

- To start the engine using the starter rope, hold the operator presence control bar down to the upper handle.
- Pull the starter handle (at the end of the starter rope) quickly. DO NOT allow the starter rope to snap back.

IMPORTANT NOTE: DO NOT CRANK THE ENGINE CONTINUOUSLY FOR MORE THAN FIVE SECONDS EACH TIME YOU TRY TO START. WAIT FIVE TO TEN SECONDS BETWEEN EACH ATTEMPT TO START.

TO STOP THE ENGINE AND BLADE

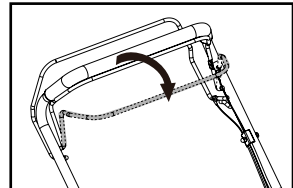
1. To stop the engine, release the operator presence control bar.



TO SET THE MOWER CUTTING HEIGHT

IMPORTANT NOTE: MAKE SURE ENGINE AND BLADE ARE STOPPED.

Adjust the cutting height to suit your requirements. The middle position is suitable for most lawns. Raise the wheels for low cut and lower the wheels for a high cut. See page 17 of this manual for a grass height cutting guide.

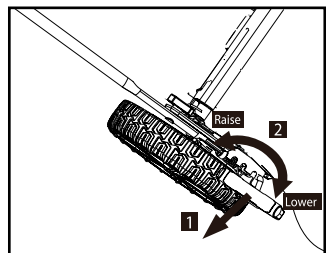


NOTE: For shipping purposes the height adjustment position may not be adjusted to the cutting position. Before operating the mower adjust cutting height to the normal cutting position.

SINGLE POINT HEIGHT ADJUSTMENT MODELS

All four wheels are adjusted by a single lever.

1. Pull height adjuster toward wheel.
2. To raise the mower, move the lever forward to desired position. To lower the mower, move the lever toward the rear.



DRIVE CONTROL

DRIVE CONTROL HANDLE

1. Self-propelling is controlled by holding the operator presence control bar down to the handle and pulling the drive control handle to the handle.
2. To stop forward motion without stopping the engine, release the drive control handle. Hold the operator presence control bar down against the handle to continue moving without self-propelling.

DRIVE ADJUSTMENT

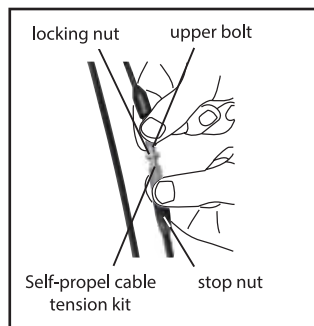
Note: The drive system consists of pulleys, a belt, and a cable linking the transmission to the drive handle. As these components wear, adjustments may be needed. To adjust the drive linkage perform the following:

- Loosen the locking nut with a wrench (not supplied).
- Hold the upper bolt and turn the stop nut clockwise to shorten the cable, counterclockwise to lengthen the cable.
- Start the mower to test the function of the drive control handle and tighten the locking nut once self-propel can engage.

Note: The cable must be loose with the self-propel drive bar in the released position; otherwise, the machine may creep when the drive control handle is disengaged.

Note: Self-propelled speed can change on slopes.

NOTE: After releasing the drive control, if the mower will not roll backwards, push the mower forward slightly to disengage the drive wheels.



TO CONVERT MOWER

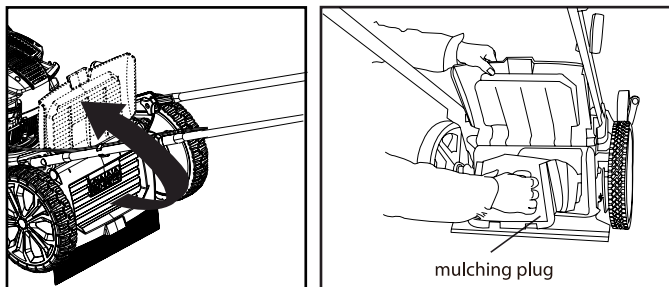
Your lawn mower may have been shipped ready to be used as a mulcher. Convert to bagging or discharge modes by changing the installed accessories.

NOTE: This lawn mower has three functions. Change functions by changing the installed accessories as shown in the following chart.

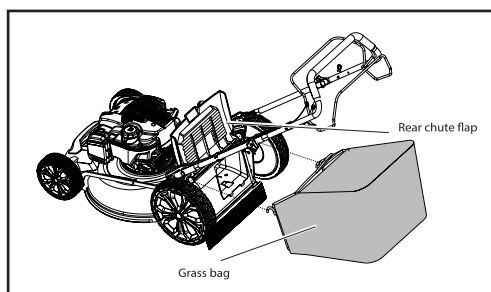
To convert mower	mulching plug	grass catcher	side discharge deflector
For rear bagging	x	✓	x
For mulching	✓	x	x
For side discharging	✓	x	✓

"✓" Installed "x" Removed

REAR BAGGING



1. Lift rear door of the lawn mower.
2. Remove the mulching plug when you set your lawn mower for rear bagging.



3. Place the grass catcher frame hooks onto the grass bag brackets.

NOTE: For clarity, rear door is not shown.

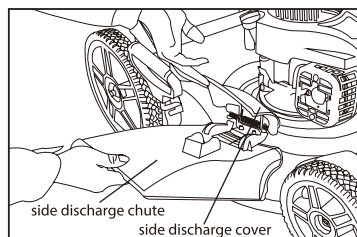
4. Pull the operator presence control bar down to the upper handle.
5. Ensure that rear door covers any gap between mower deck and bagging unit.
6. To convert to mulching or discharging operation, remove grass catcher, assemble the mulching plug and close the rear door.

SIDE DISCHARGING

IMPORTANT: THE REAR DOOR MUST BE CLOSED.

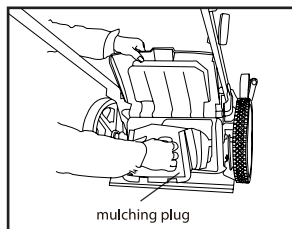
1. Open the mulch door.
2. Install the discharge deflector under the door as shown. The mower is now ready for discharging operation.

NOTE: To convert to mulching or bagging operation, side mulch door must be closed.



MULCH/DISCHARGE GUARD

1. Open the mulch door.
2. Remove the discharge deflector.
3. Assemble the mulching plug as shown. The mower is now ready for mulching operation.



SIMPLE STEPS TO REMEMBER WHEN CONVERTING YOUR LAWN MOWER

FOR MULCHING

- The rear door is closed.
- The mulch door is closed, and the mulching plug must be assembled.

FOR REAR BAGGING

- Remove the mulching plug.
- The grass catcher is installed.
- The mulch door is closed.

FOR SIDE DISCHARGING

- The rear door is closed.
- Assemble the mulching plug.
- The discharge deflector is installed.



CAUTION: DO NOT run your lawn mower without the rear door closed or an approved grass catcher properly installed. NEVER attempt to operate the mower with the rear door removed or propped open. Serious injury may result from operating the mower with the rear discharge open.

MOWING TIPS



CAUTION: DO NOT use dethatcher blade attachments on your mower. Such attachments are hazardous, will damage your mower, and could void your warranty.

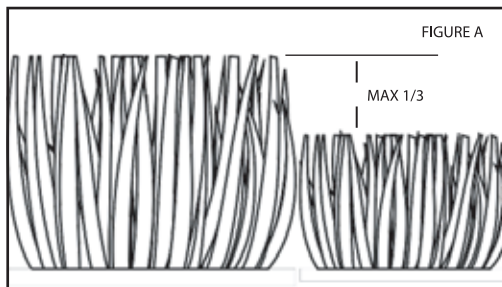
- Under certain conditions, such as very tall grass, it may be necessary to raise the height of cut to reduce pushing effort and to keep from overloading the engine and leaving clumps of grass clippings. It may also be necessary to reduce ground speed and/or run the lawn mower over the area a second time.
- For extremely heavy cutting, reduce the width of cut by overlapping previously cut path and mow slowly.
- For better grass bagging and most cutting conditions, the engine speed should be set in the fast position (if equipped).

- Pores in cloth grass catchers can become filled with dirt and dust with use and catchers will collect less grass. To prevent this, regularly hose catcher off with water and let dry before using.
- Keep top of engine around starter clear and clean off grass clippings and chaff. This will help engine airflow and extend engine life.

MULCHING MOWING TIPS

IMPORTANT: For best performance, keep mower housing free of built-up grass and trash. See "Cleaning" in the Maintenance section of the operator's manual.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. ALWAYS mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried, yet the newly-cut area will not be exposed to direct sunlight.



- For best results, adjust the lawn mower cutting height so that the lawn mower cuts off only the top one-third of the grass blades (Figure A). If the lawn is overgrown it will be necessary to raise the height of cut to reduce pushing effort and to keep from overloading the engine and leaving clumps of mulched grass. For extremely heavy mulching, reduce your width of cut by overlapping previously cut path and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across (perpendicular) to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week, then east to west the next week. This will help prevent matting and graining of the lawn.

MAINTENANCE

THE OPERATOR'S MANUAL FOR YOUR PARTICULAR PRODUCT IS AVAILABLE BY CALLING 1-833-818-4111.

		Before Each Use	After Each Use	Every 10 Hours	25 Hours Or Season	Every 100 Hours	Before Storage
LAWN MOWER	Check for loose fasteners	x					x
	Clean/inspect grass catcher*	x	x				x
	Check tires	x					
	Clean drive wheels***	x					
	Clean lawn mower****		x				x
	Clean under drive cover***			x			
	Check drive belt/pulleys***				x		
	Check/sharpen/replace blade				x		
	Lubrication				x		
	Clean and recharge battery**				x		x
ENGINE	Check engine oil level	x					
	Change engine oil				x		
	Clean air filter				x		
	Inspect muffler				x		
	Replace spark plug					x	
	Replace air filter paper cartridge					x	
	Empty fuel system or add stabilizer						x

* (if equipped)

** Electric-start mowers

*** Power-propelled mowers

**** Use a scraper to clean under deck

NOTES: (1) Change more often when operating under a heavy load or in high ambient temperatures. (2) Service more often when operating in dirty or dusty conditions. (3) Replace blades more often when mowing in sandy soil. (4) Charge 48 hours at end of season. (5) And after each 5 hours of use.

TO EXAMINE THE BLADE



WARNING: ALWAYS stop the engine before you do work on the blade. The blade continues to rotate after the throttle has been released. Make sure that the blade is fully stopped and disconnect the spark plug cap before you start work.

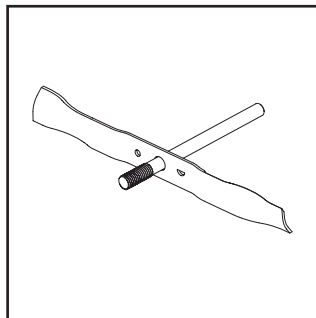


CAUTION: For best results, keep the blade sharpened. Replace damaged blades immediately. DO NOT use a mower with damaged blades.

- Examine the blade for cracks and other damage. A damaged blade must always be replaced.
- Always make sure that the blade is correctly ground and balanced. To examine blade balance, use a 7/8" (22 mm) diameter steel bolt, pin or a cone balancer. Obey the instructions included with the balancer.
- DO NOT use a nail to balance the blade. The lobes of the centre hole are not centred.
- Move the blade onto an unthreaded part of the steel bolt or pin, and hold the bolt or pin parallel to the ground. If the blade is balanced, it stays in the horizontal position.

If one of the two ends of the blade moves down, sharpen the heavy end until the blade is correctly balanced.

NOTE: The blades must be balanced after sharpening. DO NOT sharpen or balance the blade on your own. Speak to an approved service workshop.



TO REPLACE THE BLADE

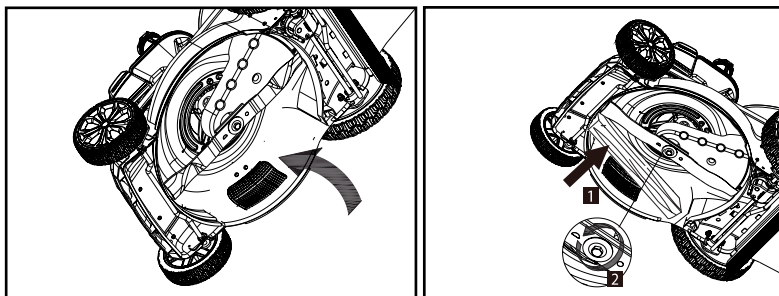


WARNING: Use gloves and/or wind the blade with a heavy cloth to prevent injury to your hands.



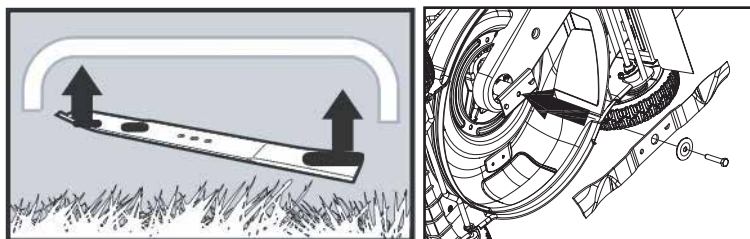
CAUTION: Only use a replacement blade from an approved manufacturer. Using a blade not approved by the manufacturer is dangerous and can cause damage to the product and void the warranty.

1. Always disconnect the spark plug before you do maintenance.
2. Always empty the fuel tank before you put the product on its side. Empty the fuel tank by operating the machine until the tank is empty.

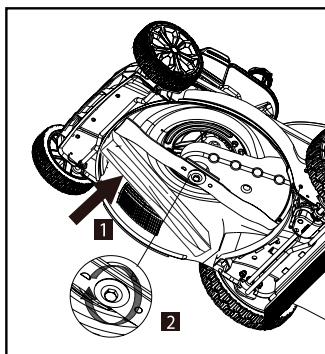


3. Turn the product on its side. When the product is tilted, make sure that the air filter is always put in the highest position.
4. Use a wood block between the blade and the mower housing to prevent the blade from turning when removing the blade bolt.
5. Remove the blade bolt by turning the bolt counterclockwise.
6. Remove the blade. Make sure that the blade adapter is not damaged. Examine the blade bolt for damage and make sure the engine shaft is not bent.

TO ASSEMBLE THE BLADE



1. Put the blade adapter on the engine crankshaft. Make sure the key in the adapter and crankshaft keyway are aligned.
2. Always attach the blade with the angled ends pointing up in the direction of the engine.
3. Use a block of wood between the blade and product housing. Tighten the blade bolt and turn it clockwise.
4. Always tighten the bolt with a torque of 33–40 ft-lb (45–55Nm).
5. Make sure the spark plug cable is disconnected from the engine.



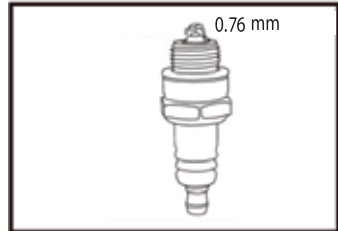
6. Pull the blade around by hand and make sure it rotates freely.



CAUTION: To prevent accidental start, always disconnect the spark plug cable and put the wire where it cannot touch the spark plug.

TO MAINTAIN THE SPARK PLUG

1. Once the engine has cooled, pull off the spark cover with a twist.
2. Remove the spark plug using a spark plug wrench (not supplied).
3. Clean the spark plug with a wire brush (not supplied).
4. Using a feeler gauge, set the gap to 0.76 mm.
5. Install the spark plug carefully by hand to avoid cross-threading.
6. After the spark plug is seated, tighten with the spark plug wrench to compress the washer.



TO MAINTAIN THE AIR FILTER

Soiled air filters reduce the engine output by supplying too little air to the carburetor. If the air contains a lot of dust, the air filter should be checked more frequently.



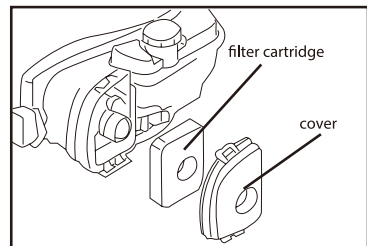
CAUTION! Never run the engine without the air filter element installed.

1. Use a screwdriver (not provided) to loosen the screw then remove the cover.
2. Remove the filter cartridge.
3. To loosen debris, gently tap the filter cartridge on a hard surface. If the filter cartridge is excessively dirty, replace with a new one.



CAUTION! Never clean the air filter cartridge with gas or flammable solvents. Clean the air filter cartridge only with compressed air or by tapping it.

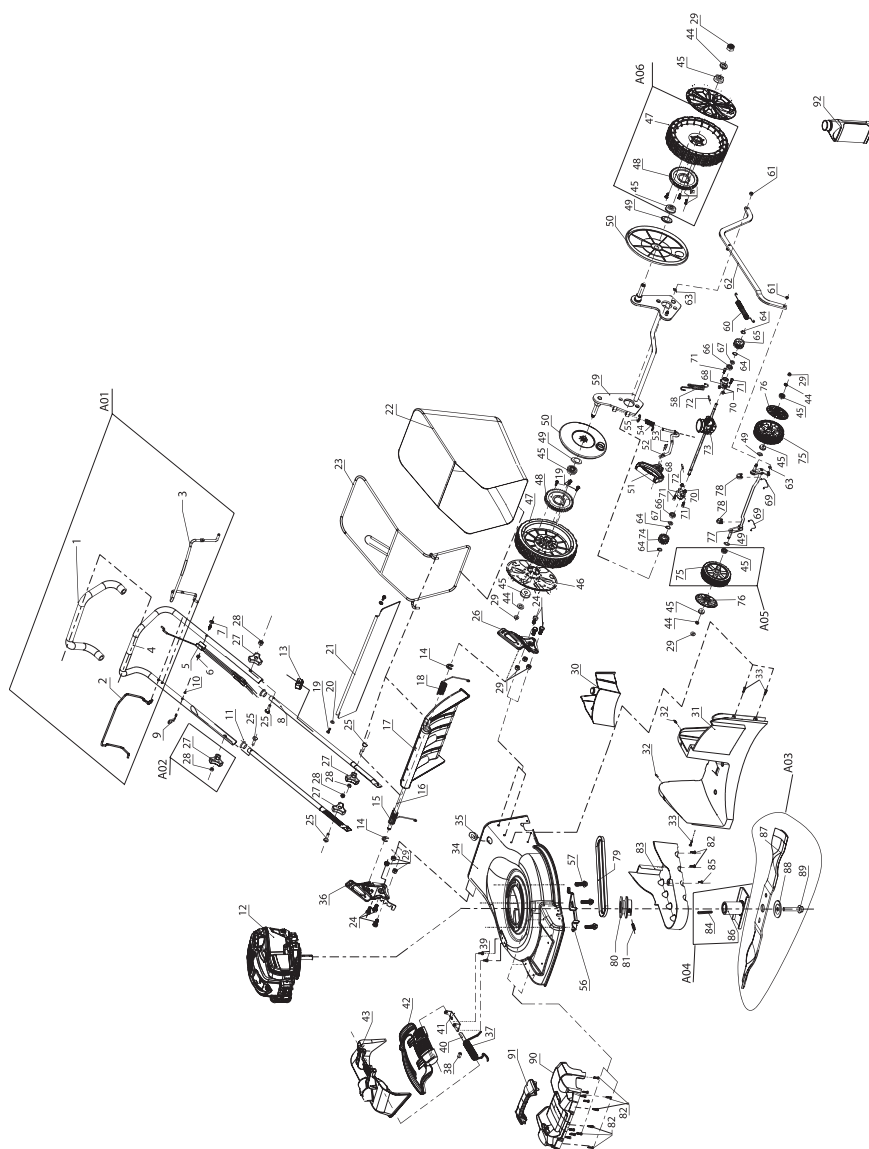
4. Install the filter cartridge.
5. Close the cover and secure it with the screw.



TROUBLESHOOTING

FAULT/MALFUNCTION	CAUSE	SOLUTION
Loud while running; machine vibrates heavily.	Screws are loose.	Tighten screws.
	Blade fasteners are loose.	Tighten blade fasteners.
	Blade is unbalanced.	Replace blade.
Engine does not start.	Start/stop lever not pressed.	Press start/stop lever.
	Spark plug is defective.	Replace spark plug.
	Cutting blade is worn or damaged.	Replace it through the customer service centre.
	Fuel tank is empty.	Refill with fuel.
	Engine may be flooded.	Remove plug and dry.
Engine runs unsteadily.	Air filter is soiled.	Clean the air filter.
	Spark plug is soiled.	Clean the spark plug.
Uneven mowing results.	Blade is blunt.	Sharpen the blade.
	Cutting height is too low.	Set correct height.
Grass bag is not filled sufficiently.	Blade is worn.	Replace the blade.
	Grass bag is clogged.	Empty the grass bag.
	Cutting height is not right.	Correct the cutting height.
	The lawn/grass is wet.	Allow the lawn to dry.
	Discharge channel/housing is blocked.	Clean the discharge channel/ housing.
	Underside of the mower deck is clogged.	Clean the underside of the mower deck.

EXPLODED VIEW



PARTS LIST

No.	PART CODE	DESCRIPTION	Qty
01	1052270000	Soft casing pipe	01
02	1252933000	Self propel control lever	01
03	1252788000	Blade control lever	01
04	1252932000	Upper handle	01
05	1002188001	Control cable	01
06	2600147001	Acorn nut M6	01
07	2600081001	Bolt M6X35	01
08	1003077001	Lower handle	02
09	1250470001	Rope guider	01
10	2600172001	Self locking nut M6	01
11	1051123001	Lower handle plug	02
12	1003590001	B&S 675 Exi engine 1" shaft engine	01
13	1054771001	Cable clip	01
14	2600709002	Split damping ring 6	02
15	1350406001	Right spring of rear flap	01
16	1252764001	Rear flap shaft	01
17	1050647001	Rear flap	01
18	1350405001	Left spring of rear flap	01
19	2600721001	Screw and plain washer combination ST4.8X16 C Z S2 N	14
20	2600426001	Washer 6	02
21	1052267001	Fender	01
22	1002368007	Grass bag	01
23	1251934001	Grass bag frame	01
24	2600111002	Hexagon flange bolts, heavy series M8X16	06
25	1250861001	Arc head bolt	04
26	1252763001	Left handle bracket	01
27	1054854000	Knob	04
28	2600127000	Hexagon nut, grade c, M8	04
29	2600141001	Prevailing torque type hexagon nuts M8	10
30	1051305001	53cm Mulch plug	01
31	1051303001	53cm Rear housing	01
32	2600676001	Deg flush head break mandrel blind rivets 4X16	02
33	2601285001	Screw ST4.8X16 (type F)	03

No.	PART CODE	DESCRIPTION	Qty
34	1003597001	Deck	01
35	1051306001	Protective sleeve	01
36	1003083001	Right handle base	01
37	1350101001	Side discharge torsion spring	01
38	1050776001	Spring cap	01
39	2600099002	Bolt M6X10	02
40	1250515001	Side discharge shaft	01
41	1250514001	Side discharge bracket	01
42	1050774001	Side discharge cover	01
43	1050775001	Side discharge chute	01
44	2600427001	Plain washer 8	04
45	1250310001	Ball bearing	08
46	1055295001	300mm wheel cap	02
47	1051267001	300mm wheel	02
48	1054768000	Driven gear	02
49	2600458001	Wave spring washers	04
50	1051268001	Dust proof cover	02
51	1051291014	Height-adjusting handle	01
52	1002637001	Height-adjusting lever	01
53	2600647001	Spring pin 4X12	02
54	1350089001	Height-adjusting spring	01
55	2600711001	Split damping ring 8	01
56	1253877001	Belt limit bracket	01
57	1250487001	Engine mounting bolt	03
58	1003114001	Spring components	01
59	1002367001	Rear shaft assembly	01
60	1350254001	Connecting rod spring	01
61	2600140001	Prevailing torque type hexagon nuts M6	02
62	1002480001	Connecting rod	01
63	1253600001	Adjust the gasket	02
64	2600687001	External circlips 12	04
65	1000873001	Right drive gear	01
66	2600817001	Deep groove ball bearing 6001-2Z (28X12X8)	02
67	1251065001	Washer	01

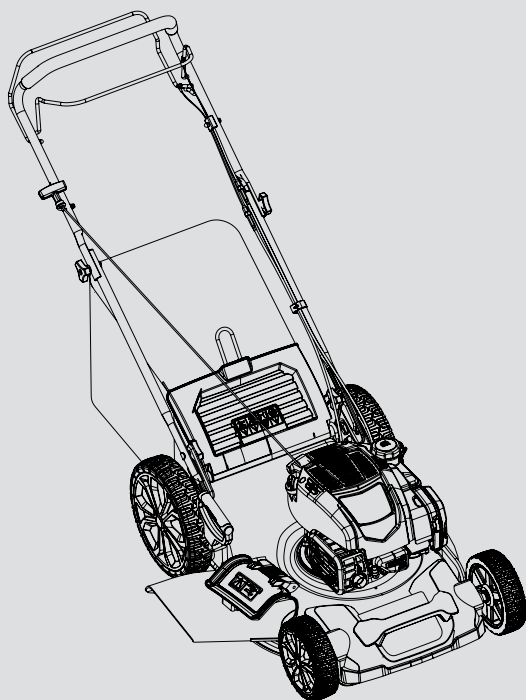
No.	PART CODE	DESCRIPTION	Qty
68	1200175001	Gear box bush	02
69	1250469001	Spring hook	02
70	2600232001	Hexagon socket head screw MM8X25	04
71	2600173001	Self locking nut M8	04
72	1251002001	Cylindrical pin	02
73	1001244001	GT adjustable speed gearbox	01
74	1000872001	Left drive gear	01
75	1050643001	200mm wheel	02
76	1055294001	200mm wheel cap	02
77	1002366002	Front shaft	01
78	1050642001	Plastic	02
79	1400145001	Belt	01
80	1253771000	Engine pulley	01
81	2601297001	Set screw M6X10	01
82	1250862001	Screw and plain washer combination ST4.8X13	08
83	1051304001	53CM belt cover	01
84	1253774001	Square key	01
85	2600100001	Hexagon flange bolts, heavy series M6X12	01
86	1003210001	Blade adapter	01
87	1251055001	Blade	01
88	1250061001	Heavy cone washer	01
89	1251056001	Blade tension bolt 3/8-24UNF	01
90	1055293001	Front decorative cover	01
91	1052766011	Front transporting handle	01
92	0440096001	Oil can	01
A01	1002186004	Upper handle assembly	01
A02	1003108002	Knob	04
A03	1003214000	Blade assembly	01
A04	1003713000	Blade adapter assembly	01
A05	1002436000	200mm wheel assembly	02
A06	1002437000	300mm wheel assembly	02

WARRANTY

BENCHMARK 163CC 3-IN-1 LAWN MOWER WARRANTY

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs and/or batteries. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply. For use at the consumer level. The warranty is not for industrial or commercial applications.

163CC 3-IN-1 LAWN MOWER



EXCLUSIVE TO HOME HARDWARE

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