Save this guide for future reference

Original user manual

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Lawn mower

User manual

MODEL NO.: KS48, KS48S, KS48S-H, KS51S-H, KS53H, KS53S-H, KS53S, KS53S-B, KS53S-L, KS53S-E, KS56S, KS56S-H

SERIAL NO.:

Model and serial numbers are listed on the manufacturer's nameplate.
Write them down and keep them in a safe place.

CAUTION! Read and follow all safety rules and instructions before using this device.

Thank you for choosing our Gasoline Lawnmower.

To ensure that you get the best results from your Gasoline Lawnmower please read all of these safety and operating instructions carefully before using this product.

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1. Safety messages

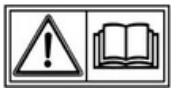
Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the mower. This information alerts you to potential hazards that could hurt you or others. Please read these messages carefully.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a lawn mower. You must use your own good judgment.

You will find important safety information in a variety of forms:

Safety Labels – on the lawn mower.

Instructions – how to use this mower correctly and safely.



Important: Read the instruction manual before using the machine.

Danger of thrown objects.
Keep other people at a safe distance while working
Warning: Remove the spark plug cable from the spark plug and read instructions before carrying out any repair or maintenance.
Danger of cutting yourself.
Blades in movement. Do not put hands or feet near or under the opening of the cutting plate.

Safety Messages – preceded by a safety alert symbol and one of three signal words: DANGER, WARNING, or CAUTION.

⚠ DANGER You will be killed or seriously hurt if you don't follow instructions

⚠ WARNING You will be killed or seriously hurt if you don't follow instructions.

⚠ CAUTION You can be hurt if you don't follow instructions.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

General Conditions Of Use.

- This machine is to be used exclusively for cutting natural grass. Never use the mower for other purposes. Any other utilization can involve danger for your safety and can involve damage to the mower. Persons under 16 years of age and persons who are not
- familiar with the user instructions must not use the mower. The user is responsible of the safety of other people in the working area. Keep children and
-

domestic animals at a safe distance while the mower is in use.

- Before mowing, remove all foreign object from the lawn which may be thrown by the machine, stay alert for any foreign objects which may have been missed.

Using Instructions

- Check that all nuts, bolts and screws are well tightened. Before mowing place the grass
- catcher in its position. Before mowing make sure that the blade and the blade fixing screw
- are securely fastened. When cutting edges require resharpening, this must be done evenly on both sides so as to prevent any imbalance. If the blade is damaged, it must be replace. When mowing always wear a long trousers and strong footwear. Do not run the engine in
- an enclosed and/or poorly ventilated area, where gas of the engine contains carbon
- monoxide, which are dangerous for your health. Work only when there is sufficient light. Do not use the lawnmower when it is raining or when the grass is wet. Particular
- precautions must be taken while mowing on slopes or downing stretches. Mow across the
- face of slopes, never down or up. Turn off the engine if you must leave the lawnmower
- unattended, displace the lawnmower or incline it. Never lift the rear of the mower while starting the engine and never place your hands and feet underneath the deck or into the
- rear discharge chute while the engine is running. Never change in any way the rated speed of the engine. On the self-propelled mowers, disconnect the self-propelled system before
- starting the engine. Never lift or carry the mower while the engine is running. Stop the engine and remove the spark plug cover in these cases:

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-

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  - Before any operation under the deck or the grass rear discharge chute. Before any
  - maintenance, repairing or checking operations. Before carrying, lifting or removing
  - the mower. If you leave the mower unattended or changing the cutting height. To
  - remove and emptying the grass catcher.
  - After hitting a foreign object, stop the engine and check thoroughly the mower in
  - order
    to see if it is damage. Bring the mower in a agreed service station to do the repairing if necessary.

⚠ WARNING After you stopped the engine the blade is still in motion during a few seconds

  - If the mower vibrates in an abnormal way, find the reasons why, and take your mower to an agreed service station.
  - Check regularly that bolts, nuts and screw are secularly tightening for a safe use of the mower.

- GASOLINE IS HIGHLY INFLAMMABLE
  - Keep gasoline in a jerry can specially made for this purpose.
  - Fill up the tank with a funnel, do the operation outside. Do not smoke. Do not use mobile

phone. Fill up with gasoline and oil before staring the engine. Never open the cap of
- the fuel tank to add gasoline while the engine is running or still hot. Do not start the engine if there is some gasoline spread around, take the mower away from the one
- where gasoline have been split and avoid any contact from a hot source as long as the split gasoline is completely eva0porated. Tighten the fuel tank cap and close tightly the jerry can cap.
-

2. Assembly

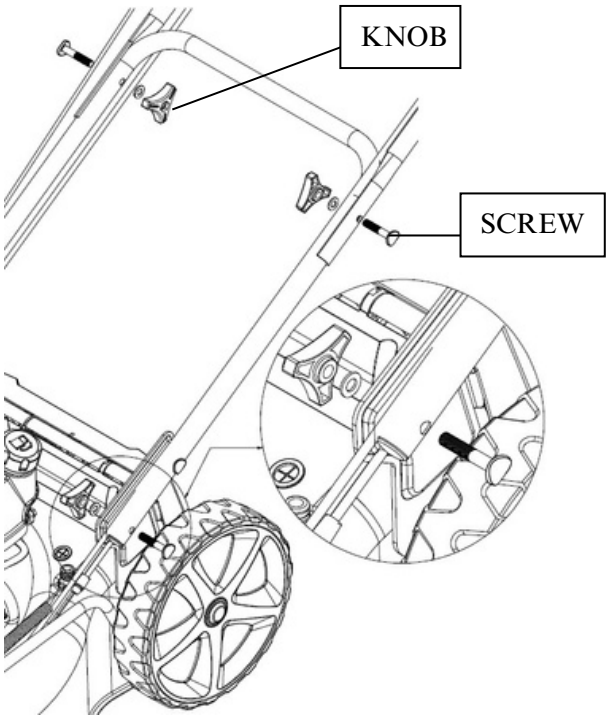
Unpacking

Remove lawn mower from carton and check thoroughly for additional loose parts.

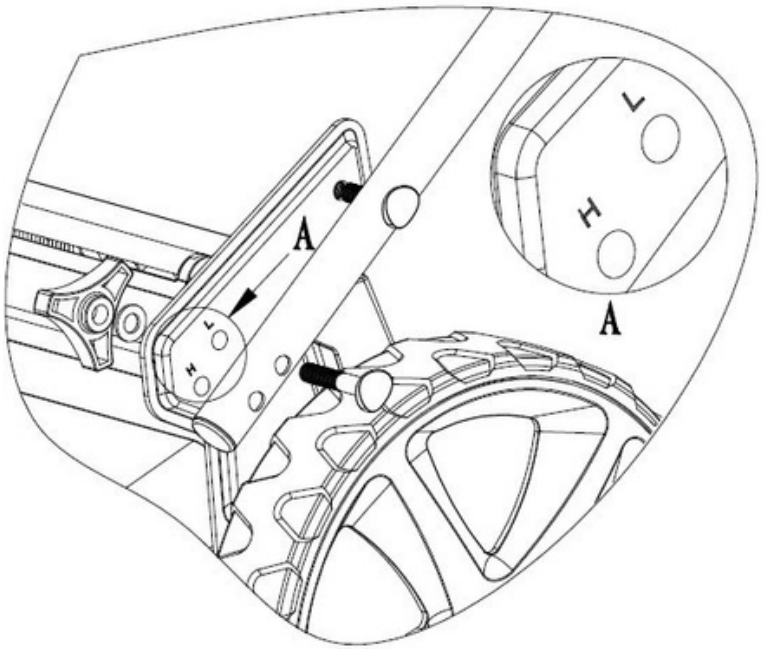
Handle Setup And Height Adjustment

Open out the handle and screw the handles parts with the four screws and knobs. Put the recoil starter on the right of the handle and fix the cable with the plastic collar.

Introduce the rope of the recoil starter handle on its support guide rope.

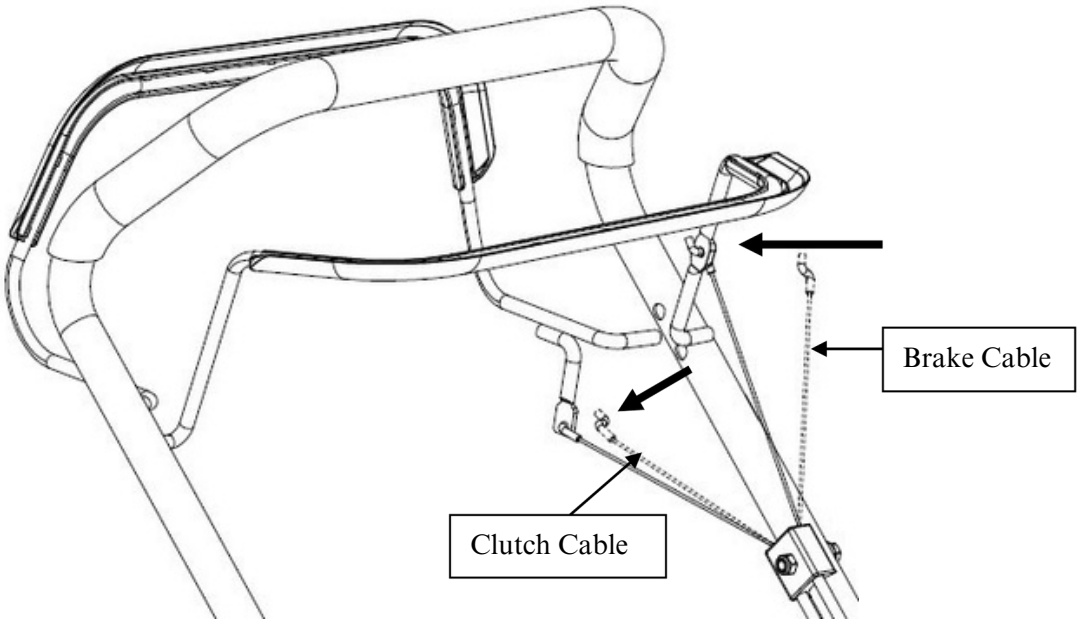


If you want to adjust height of the handle bar, you can choose" L" or "H" two holes in left-right Bracket to fix the handle bar with screws and knobs.
The "H" hole is high position of the handle bar, and the "L" hole is low position of the handle bar.



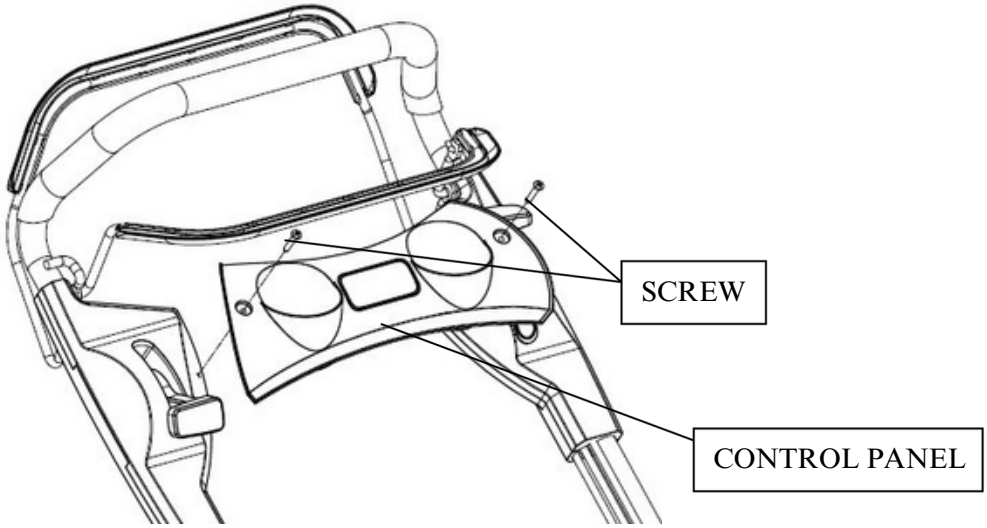
Brake Cable Setup

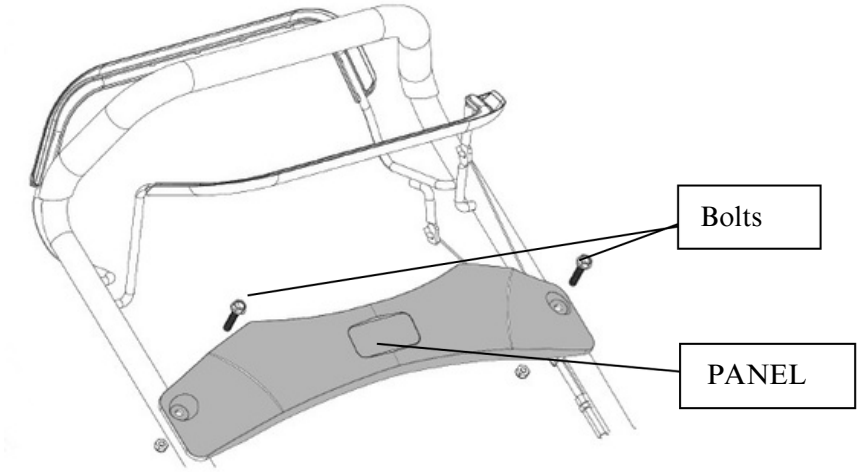
Put the brake cable and Clutch cable to the hole of brake lever and Clutch lever. (see the arrow mark)



Panel Setup

Take out panel and two screws in a bag from carton, and fix the panel with screws.

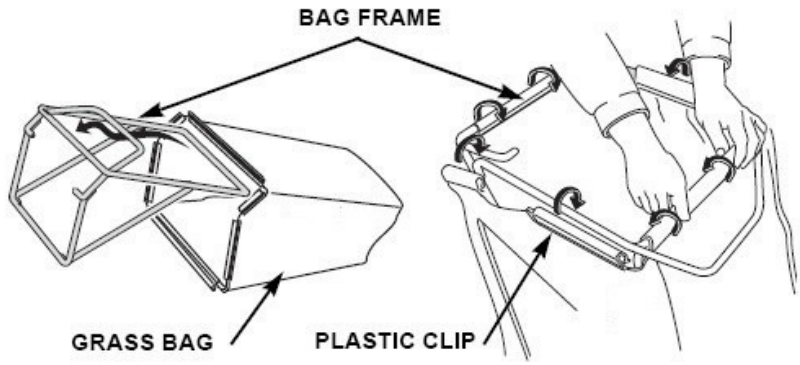




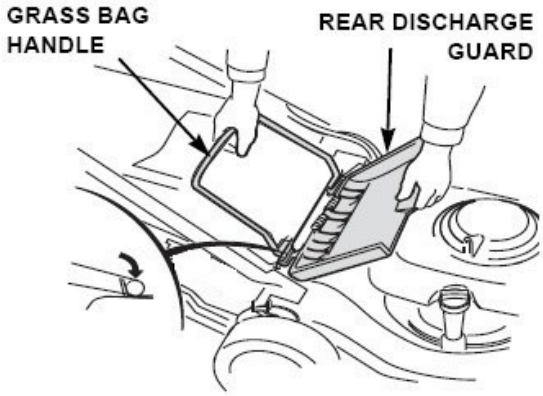
* Note: Not all models do have middle Panel.

Grass Bag Assembly

- Slide the grass bag frame into the grass bag and attach the clips as shown.

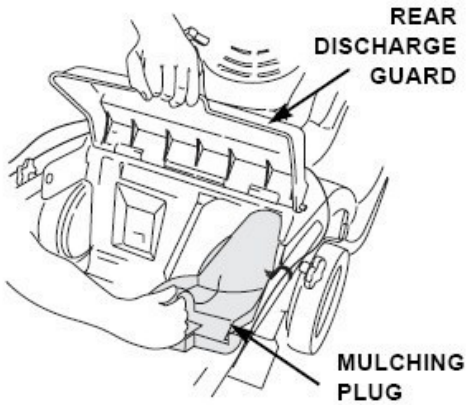


- Lift the rear discharge guard, remove the mulching plug, and install the grass bag.



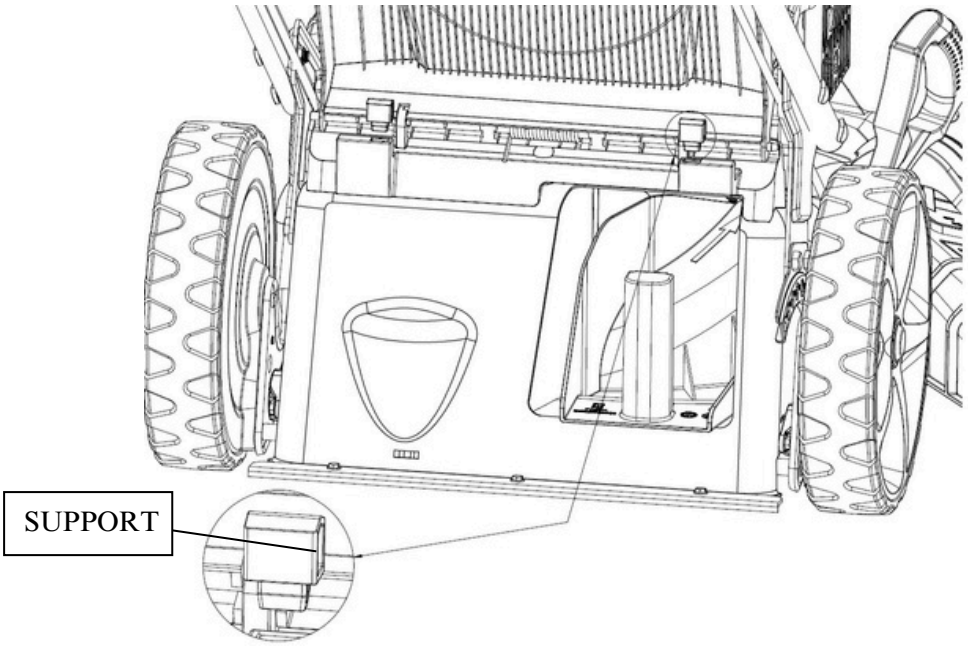
Mulching plug

The mulching plug helps to curve the inside of the mower deck for more efficient mulching. Install and remove the mulching plug by raising the rear discharge guard as shown. The mulching plug only fits one way. Remove the mulching plug when using a grass bag.



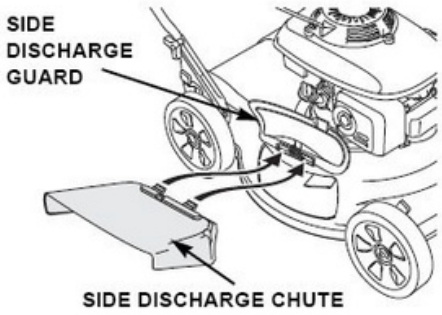
Rear Discharge Guard Props

Take out two supports in a bag from carton, and lift the rear discharge guard, install the two supports which can hold the rear discharge guard, and this can make the grass out more efficiently from the deck.



Side Discharge Cover Assembly

Lift the side discharge guard, install the side discharge cover.



Only Mulching: please remove the side discharge cover.

* Note: Not all models do have side discharge guard

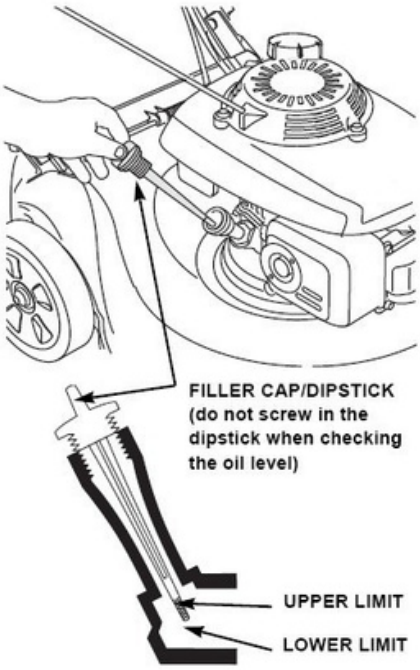
3. Before Operation

Engine Oil

The mower is shipped without oil in the engine.

All engines are run at the factory prior to packaging. Most of the oil is removed prior to shipment; however, some oil remains in the engine. The amount of oil left in the engine varies.

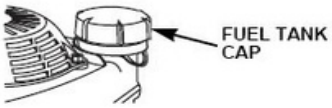
Add enough oil to bring the oil level between the upper and lower limit marks on the dipstick as shown. Do not overfill engine with oil.



FUEL

NOTICE: Engine delivered without gasoline, refuel 1.0 liter of before starting the engine.

- Remove the filler cap Add fuel to the bottom of
- the fuel level limit in the neck of the fuel tank. Do not overfill. Wipe up spilled fuel before starting the engine. Tighten the fuel tank cap
-



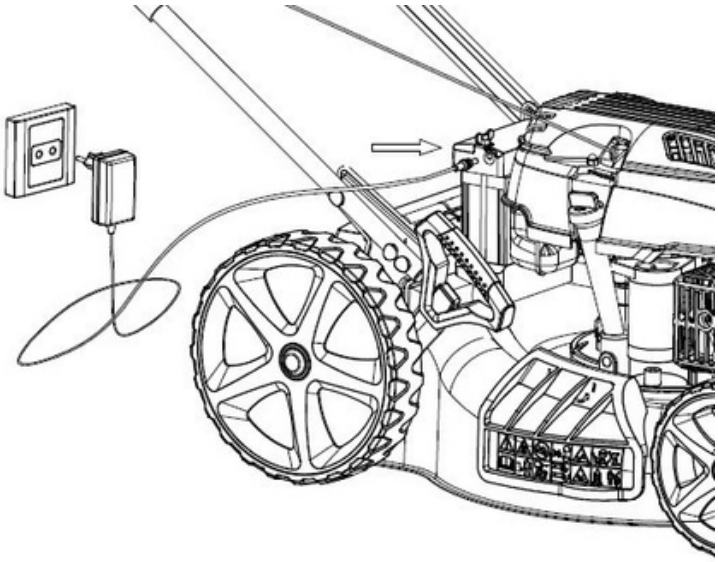
⚠ WARNING Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Use extreme care when handling gasoline. Keep out of reach of children.

Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored. Avoid repeated or prolonged contact with skin or breathing of vapor.

After refueling, tighten the fuel tank cap securely. If any fuel was spilled, make sure the area is dry before starting the engine.

Charge The Battery

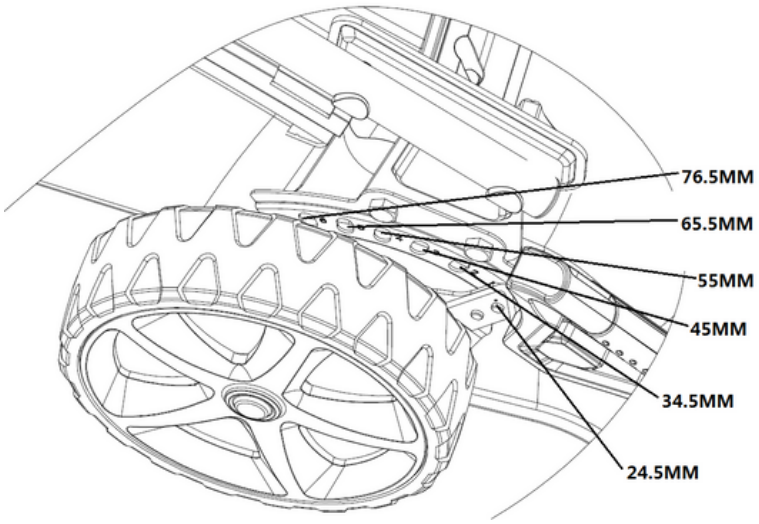
Charge the battery before use Before the electric start function is used, the battery must be charged for 5 hours. Put the charger plug into the hole in the battery and connect the charger to a power supply.



* Note: Not all models have Electric Start Function.

Cutting Height Adjustment

Check the cutting height settings, and make any necessary adjustments.



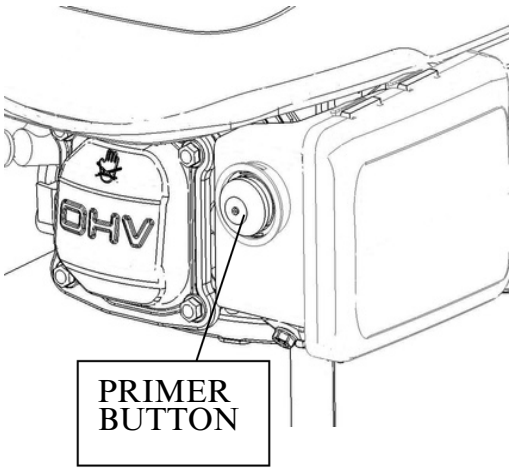
⚠ WARNING The blade can cause serious injury. Stop the engine before adjusting cutting height.

4. Operation

Starting The Engine

- Primer

In cold condition, it's necessary to push the primer button on the air filter before pulling the starter handle.



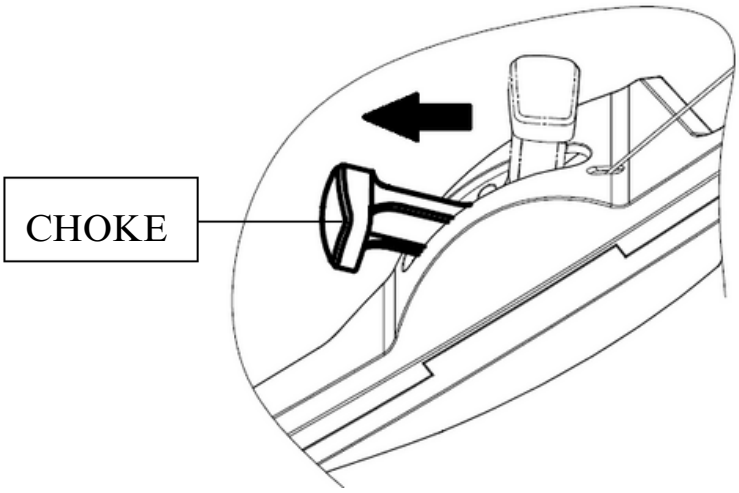
Primer only for cool engine use

Temperature	Push time
<0℃	3~4
0℃~10℃	2~3
10℃~20℃	1~2
>20℃	1

We also should put more fuel to mix air for easy start. When you push the primer button, it will pump the fuel direct from carburetor to burning house.

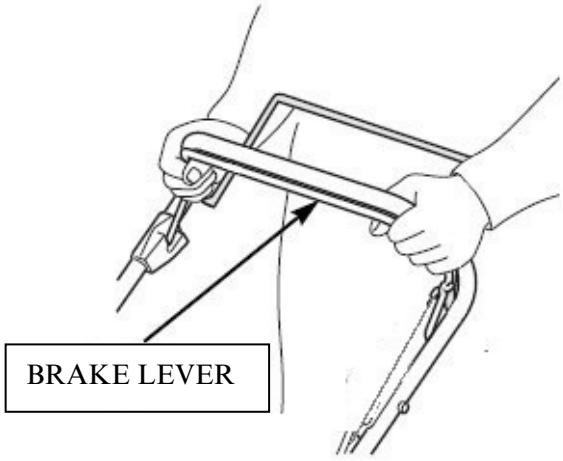
* Note: Not all models have this PRIMER.

- Move the choke lever to the"CHOKE" position.

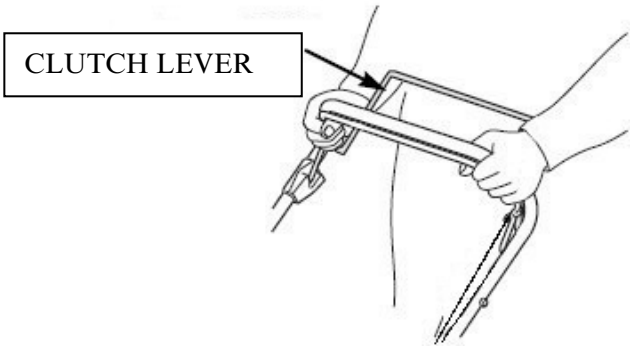


* Note: Not all models have this choke lever.

- Pull back on the brake lever and hold it against the handle.

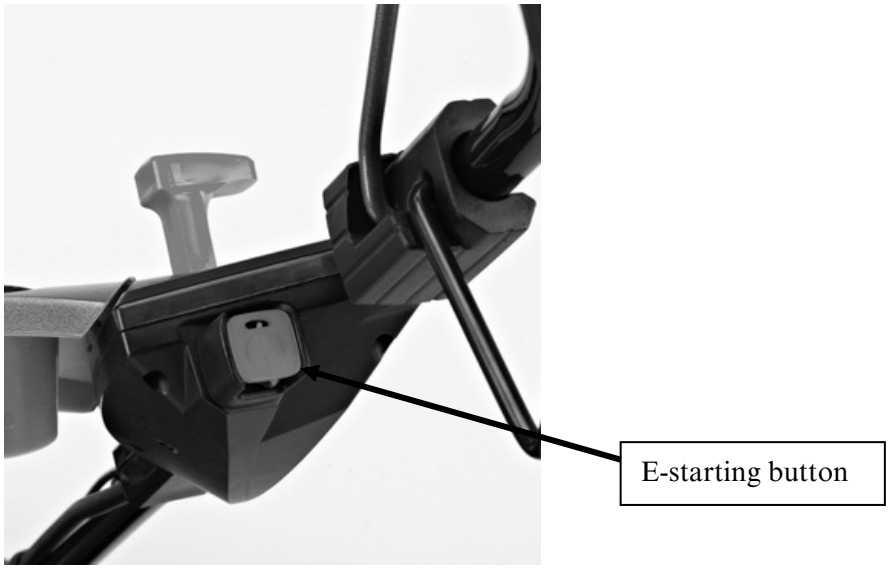


- Release the clutch lever. This will prevent the mower from moving forward when you operate the starter.



* Note: Not all models have this clutch lever.

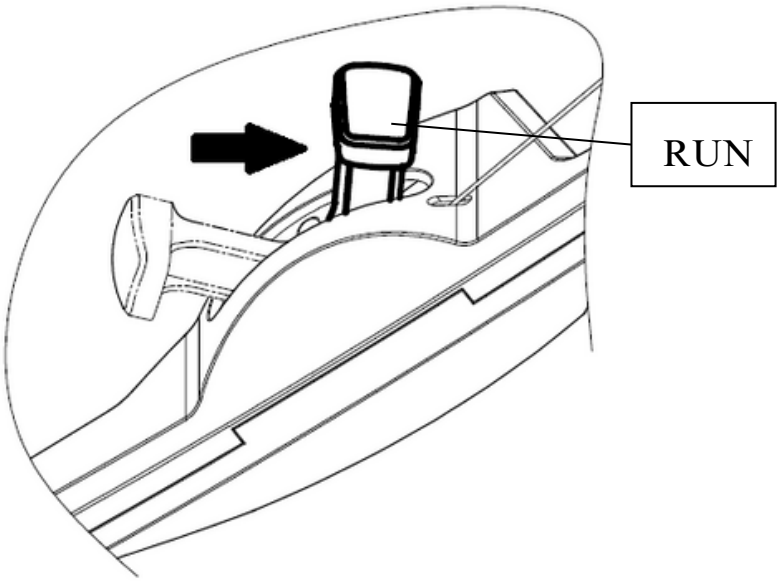
- If the models have electric start function, please press the E-starting button lightly, the engine will be started.



* Note: Not all models have Electric Start Function.

- With the starter handle in its support, take the starter handle with your right hand and pull slowly as far as to have a resistance, then pull energetically on the starter handle with starter rope through the support. (If the cold start is not sufficient enough, repeat this operation 2 or 3 times)

- Immediately after the start, push back the choke lever from “CHOKE” position to “RUN” position.(If the temperature is low, allow the engine to run for a few minutes before starting to work.)



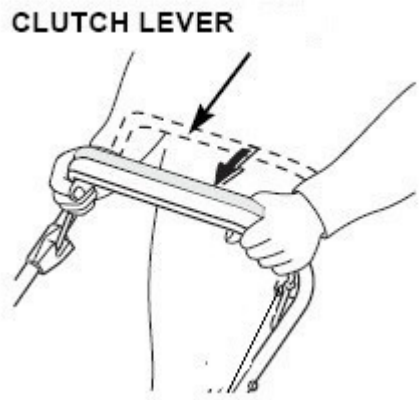
* Note: Not all models have this choke lever.

Operation The Controls For Mowing

Blade is in action as soon as engine started. While the machine is working maintain the security handle in working position. The engine will stop as soon as you release the engine control bar. Release the lever to stop the engine whenever you need to leave the mower.

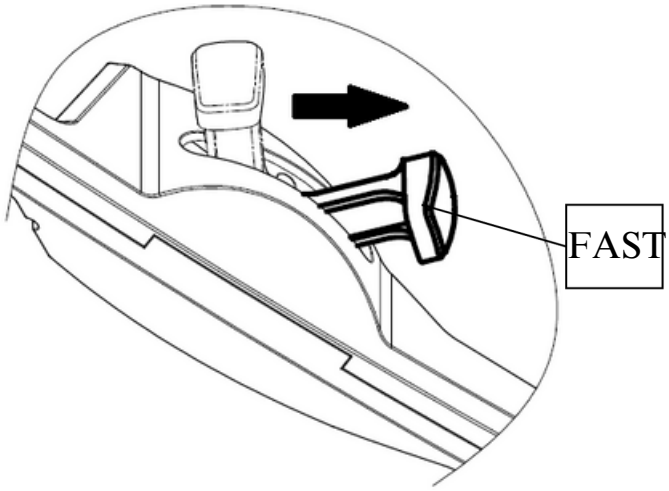
Clutch Lever

Push the clutch lever forward and hold it against the handlebar to propel the mower forward. Release the clutch lever to stop the mower's forward movement. Always release the clutch lever before starting the engine. If the clutch is engaged, the mower will move forward. Operate the clutch lever with a quick and complete motion, so the clutch is either fully engaged or fully released. Hold the clutch lever against the handlebar during self-propelled mowing. This will help to extend the service life of the clutch mechanism.



Throttle Lever

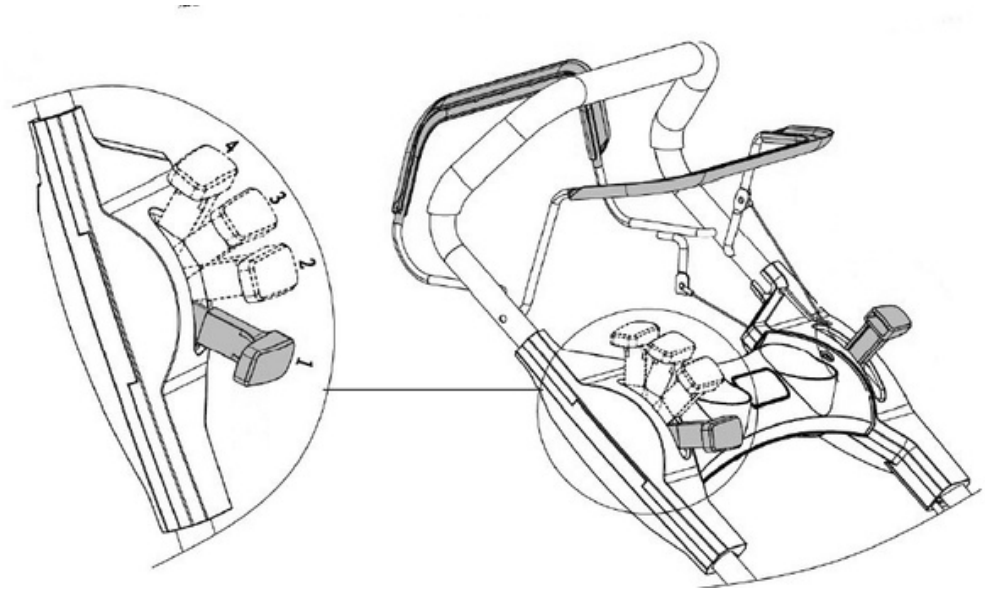
For best cut quality, always mow with the throttle lever in the "FAST" position. When the blade rotate at the preset fast speed, it creates a strong fan action that lifts and cuts grass more efficiently.



* Note: Not all models have this Throttle lever.

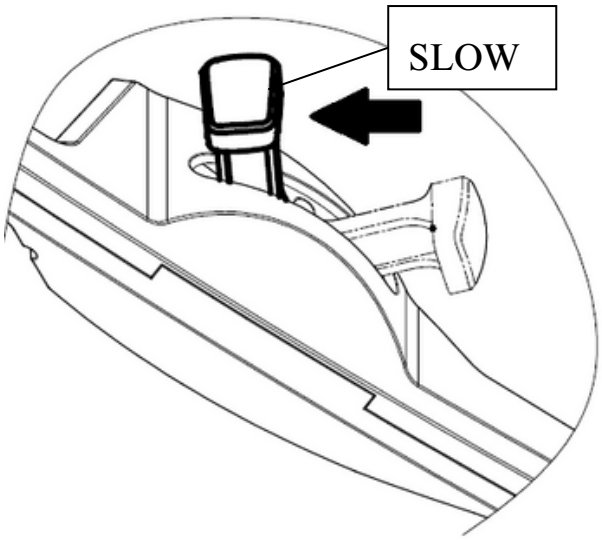
- Variable speed Lever

Speed can be adjusted from 2.7 – 5.0 km/h while driving. Activate the right handle on the dashboard and set in one of the 4 different speeds. When driving in one the two lowest speeds the pace difference will not vary significantly.



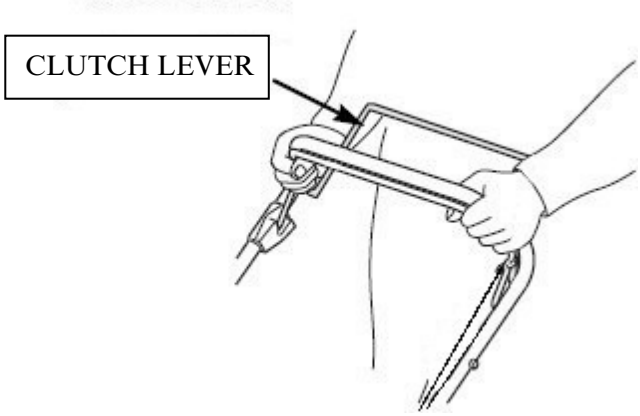
Stop Engine

- Move the throttle lever to the "SLOW" position.

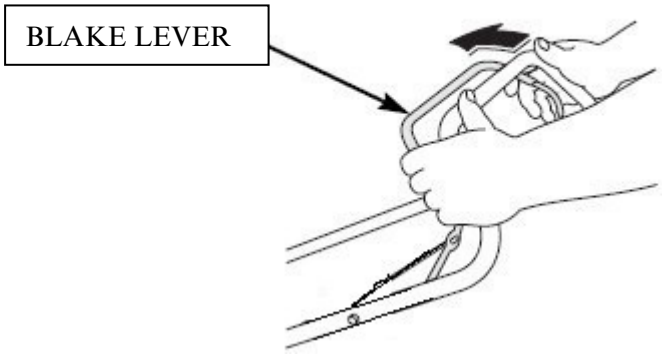


* Note: Not all models have this Throttle lever.

- Release the clutch lever.



- Release the brake lever.



⚠ WARNING The blade will continue to rotate for a few seconds after the engine has stopped. Disconnect the spark plug cap if the lawnmower is to be left unattended.

5. Maintenance

IMPORTANT Regular, careful maintenance is essential for keeping the safety level and original performance of the machine unchanged in time.

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition. Regular maintenance is essential for safety and performance. Never store the
- equipment with fuel in the tank inside a building where vapour may reach a flame or a spark or a source of extreme heat. Allow the engine to cool before storing in an
- enclosed space. To reduce the fire hazard, keep the engine, exhaust silencer, battery
- compartment and fuel storage area free of grass, leaves, or excessive grease. Do not leave containers with grass cuttings in rooms.

- For reasons of safety, do not use the equipment with worn or damaged parts. Parts are to be replaced and not repaired. Use genuine spare parts (blades should always bear the symbol). Parts that are not of the same quality can damage the equipment and be dangerous for your safety.
- If the fuel tank has to be drained, this should be done outdoors and when the engine is cool.
- Wear strong work gloves when removing and reassembling the blade.
- Check the blade's balance after sharpening.
- Check the self-closing guard and grass-catcher frequently for wear and deterioration.
- Whenever the machine is to be handled, transported or tilted you must:
  -Wear strong working gloves;

-Grasp the machine at the points that offer a safe grip, taking account of the weight and its distribution.

Blade

Inspection

- Tilt the mower to the right, so the air cleaner side is up. This will help to prevent fuel leakage and hard starting.
- Inspect the blade for damage, cracks and excessive rust or corrosion.
  A dull blade can be sharpened, but a blade that is excessively worn, bent, cracked, or otherwise damaged must be replaced.
- A torque wrench must always be used when installing the blade.
  Check that the blade bolts are tight.

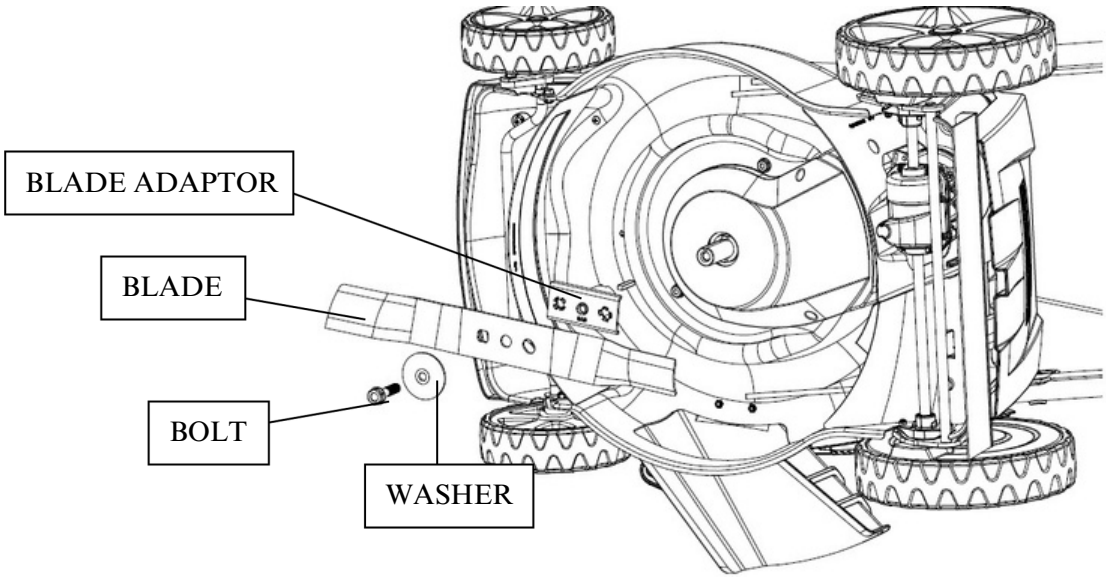
Removal and installation

If you remove the blade for sharpening or replacement, you will need a torque wrench for installation. Wear heavy gloves to protect your hands.

- Remove the bolt with a socket wrench. Use a wooden block to prevent the blade from turning when removing the bolt. Then remove the blade.

- Install the blade using the blade bolt and special washers. Be sure to install the special washers with the concave side toward the blade and the convex side toward the bolt.

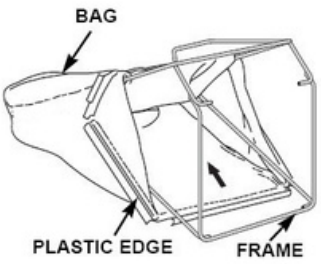
- Tighten the blade bolt with a torque wrench. Use a wooden block to prevent the blade from turning when tightening the bolt.



Grass Bag Cleaning And Replacement

Cleaning

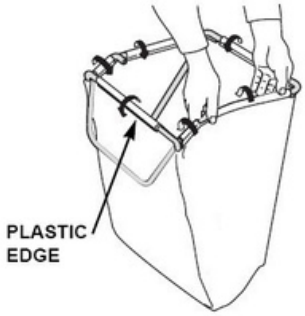
Wash the bag with a garden hose, and allow it to dry completely before use; a wet bag will clog quickly.



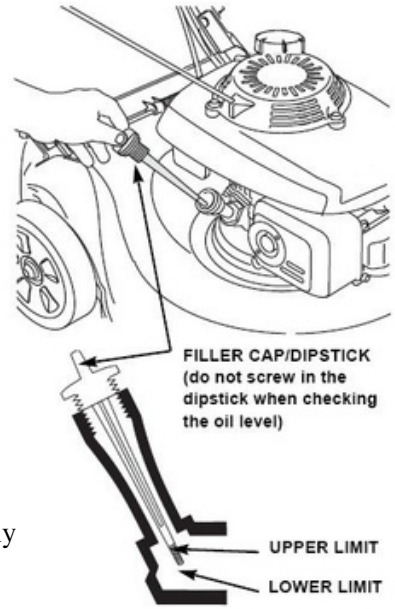
Replacement

- Unclip the plastic edges of the bag from the frame, remove the frame from the bag.

- Insert the frame into the bag, clip the plastic edges of the bag onto the frame.



Engine Maintenance



Check Engine Oil Level

Check the engine oil level with the engine stopped and the mower.

- Remove the oil filler cap, and wipe the dipstick clean.
- Insert the dipstick into the oil filler neck, but do not screw it in.
- Check the oil level shown on the dipstick. If near the lower, fill to the upper level with the oil. Do not overfill.
- Screw in the filler cap securely.

NOTICE: Running the engine with a low oil level will cause engine damage.

Change Engine Oil

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

- Wipe the oil filler area clean, then remove the oil filler cap/dipstick.
- Place a suitable container next to the mower to catch the used oil, then tilt the mower on its right side. The used oil will drain through the filler neck. Allow the oil to drain completely.

Please dispose of used motor oil and the containers in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the trash, pour it on the ground, or pour it

down a drain.

- Fill with the recommended oil. Do not overfill. Allow a couple of minutes for the oil to settle in the engine, then measure the oil level.

Air Cleaner Service

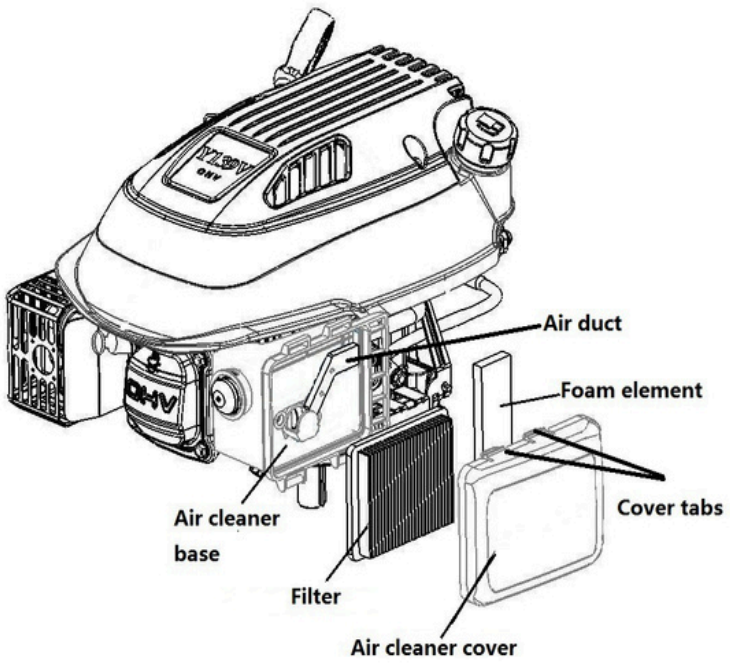
NOTICE: Operating the engine without an air cleaner, or with a damaged air cleaner, will allow dirt to enter the engine, causing rapid engine wear.

- Press down on the cover tabs and remove the cover.

- Remove the filter from the air cleaner base..

- Inspect the filter and foam element, and replace it if damaged.

- Clean the filter by tapping it several times on a hard surface to remove dirt, or blow compressed air through the air filter from the inside. Never try to brush off dirt; brushing will force dirt into the fibers.

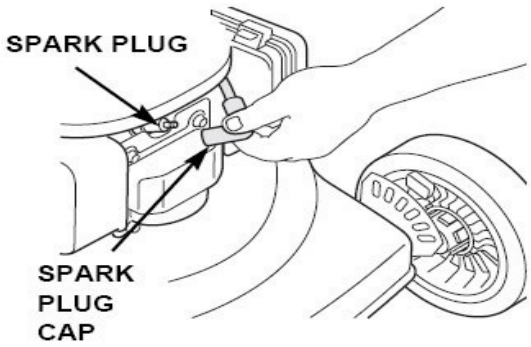


- Wipe dirt from the inside of the air cleaner base and cover, using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.
- Reinstall the filter and cover.

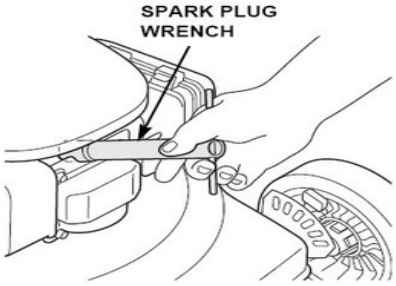
Spark Plug Service

For good performance, the spark plug must be properly gapped and free of deposits.

- Disconnect the spark plug cap and remove any dirt from around the spark plug area.

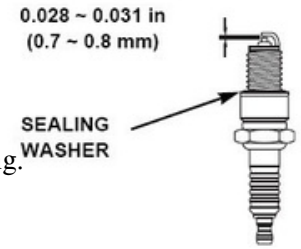


- Remove the spark plug with a spark plug wrench.



- Inspect the spark plug. Replace it if the electrodes are worn, or if the insulator is cracked or chipped.

- Measure the spark plug electrode gap with a suitable gauge. The gap should be 0.028 ~ 0.031 in (0.7 ~ 0.8mm). Correct the gap, if necessary, by carefully bending the side electrode with a suitable tool.

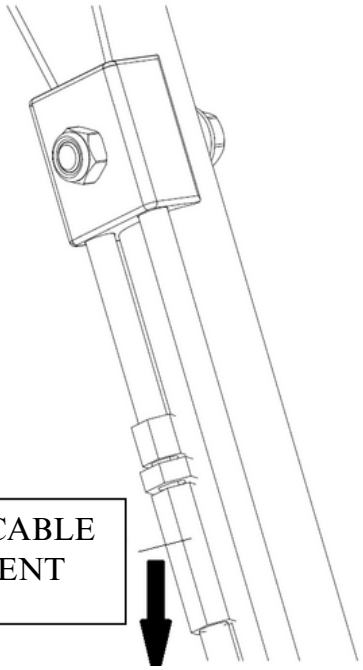


- Install the spark plug carefully, by hand, to avoid cross-threading.
- Install the spark plug cap on the spark plug.

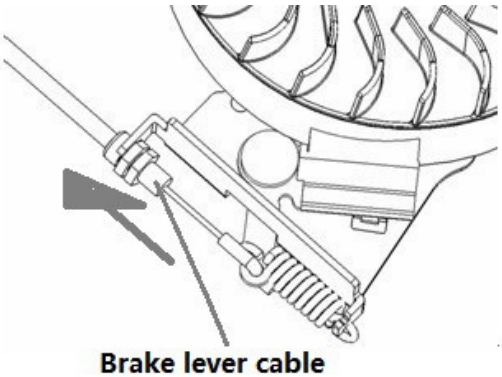
NOTICE: A loose spark plug can overheat and damage the engine. Over tightening the spark plug can damage the threads in the cylinder head.

The Clutch Lever Cable and Brake lever Cable Adjustment

- If the clutch lever were loose, you should turn the clutch cable adjustment to tighten. (please see the picture)



CLUTCH CABLE
ADJUSTMENT



Brake lever cable adjustment

- If the brake lever were loose, you should turn the brake cable adjustment to tighten. (please see the picture)

Maintenance Schedule

REGULAR SERVICE PERIOD(4 ITEM Perform at every indicated month or operating hour interval, whichever comes first. Engine oil		Before Each Use	First Month or 5 Hrs	Every 3 Months or 25 Hrs	Every 6 Months or 50 Hrs	Every Year or 100 Hrs	Every Two Years or 250 Hrs
	Check	O					
	Replace		O	O(2)			
Air cleaner	Check		O				
	Replace			O			
Spark plug	Check-adjust					O	
	Replace						O
Flywheel brake pad (A types)	Check					O	
Fuel tank and filter	Clean			O			
Fuel tube	Check	Every 2 years (Replace if necessary)					
Valve clearance	Check-adjust					O	
Combustion chamber	Clean	After every 200 hours					

Trouble Shooting

ENGINE WILL NOT START	Possible Cause	Correction
1.Check fuel.	Out of fuel. Bad fuel; engine stored without treating or draining gasoline, of refueled with bad gasoline	Refuel Drain the fuel tank and carburetor. Refuel with fresh gasoline.
2.Remove and inspect spark plug.	Spark plug faulty, fouled, or improperly gapped.	Replace the spark plug.
	Spark plug wet with fuel (flooded engine).	Dry and reinstall spark plug.
3.Take engine to an authorized our servicing dealer, or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Replace or repair faulty components as necessary.
4.Push the prime button	In cold condition	Push the prime button.

ENGINE LACKS POWER	Possible Cause	Correction
1.check air cleaner	Air cleaner elements clogged.	Clean or replace air cleaner elements
2.Check fuel	Bad fuel; engine stored without treating or draining gasoline, of refueled with bad gasoline.	Drain the fuel tank and carburetor. Refuel with fresh gasoline.
3. Take engine to an authorized our servicing dealer, or refer to shop manual.	Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Replace or repair faulty components as necessary.

6. Storage

- The same petrol must not remain in the tank for more than one month.
- Thoroughly clean the mower and store it indoors in a dry place.
- Never store the lawnmower with fuel in the tank inside a building where can reach an open flame or spark.
- To reduce fire hazard, keep the engine, muffler, battery compartment and fuel storage area free of grass, leaves or excessive grease.
- If the fuel tank has to be drained, this should be done outdoors.
- Be careful during adjustment of the machine to prevent entrapment of the fingers between moving blade and fixed parts of the machine.
- Allow the product to cool for at least 30 minutes before storing.