

GREENMAN[®]

19" Hover Mower

OPERATOR'S MANUAL



Powered By



Model
GHG190-M800

Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

Important: This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land. Other states or federal areas may have similar laws. This spark ignition system complies with Canadian ICES-002.

The enclosed Engine Owner's Manual is supplied for information regarding the US Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance, and warranty. Replacements may be ordered through the engine manufacturer.

You may contact Greenman Golf & Turf Solutions directly for product and accessory information, help finding a dealer, or to register your product. Whenever you need service, genuine Greenman parts, or additional information, please contact our Customer Service and have the model and serial numbers of your product ready. They are located on the decal on the rear of the unit as shown in this photo:



Write the numbers in the following space provided.

Model Number: _____

Serial Number: _____

You may complete and mail the enclosed product registration card, or you can register on-line at:

GreenmanGolfTurf.com

Should you require warranty service, take a copy of your sales receipt and a copy of your product registration card to your servicing dealer.

Carton Contents

- Greenman Hover Mower
- Greenman Product Registration Card
- Engine Owner's Manual / Emission System Warranty
- Lower Handle Assembly (with handle stand)
- Upper Handle Assembly (including throttle cable, engine stop lever, and on/off switch)

Key Components

The image below identifies key components of the Hover Mower so take the time to familiarize yourself with them and their function.



Assembly & Set-up

The unit has been carefully pre-assembled with adjustments and quality inspections performed by a team of trained technicians who take great pride in their work. For packaging and shipment, there are components that need installation. **When instructions refer to the left or right side of the unit, it means as standing behind at the normal operation position.**

Tools Required

Regular or needle-nose pliers, medium adjustable wrench, and 1/2" wrench (for adjusting cutting height and replacing blades – see page 7).

Assembly & Set-up (continued)

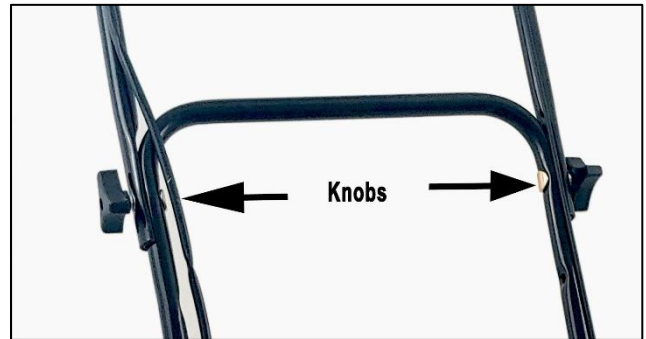
1. Insert the **lower handle** section into the mounting brackets on each side of the deck – noting that the handle stand lever will be on the right side of the unit as shown in the photos below:



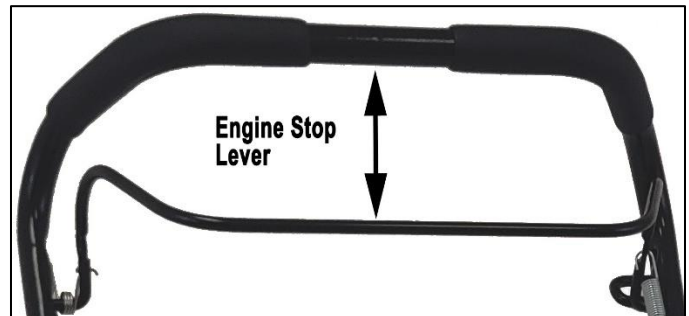
2. Secure the handle inserting the pins on each side and install the cotter pins with the washer placed beneath, then bend as shown to secure in place:



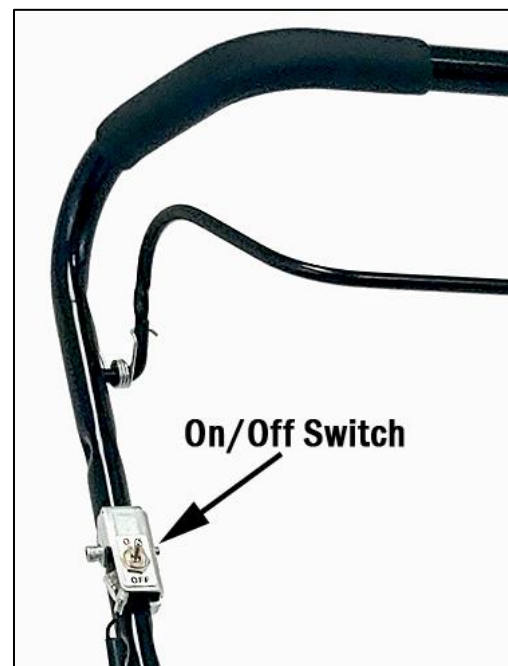
1. Attach the **upper handle** section to the lower handle section – with the stop lever facing forward – using the bolts and knobs as shown:



2. Verify the engine stop lever is properly installed, so it pivots upward completely against the handle when squeezed and returns downward when released:



3. Install the on/off switch on to the **RIGHT** side of the handle (in the **SECOND** hole below the stop lever):

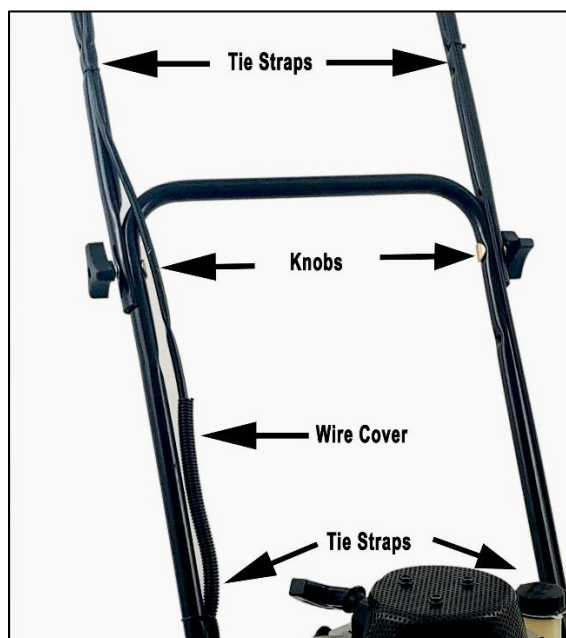


Assembly & Set-up (continued)

4. Attach the throttle spring to the hole of the stop lever on the **LEFT** side of the handle, then install the cable adjust bracket onto the handle using the **SECOND** hole below the stop lever:



5. Add the plastic tubing to cover the on / off switch wires before connecting the ends, then to the handles using the tie straps included:



Safety Instructions

The following safety alert symbols are use in these instructions in conjunction with important safety messages related to the operation of the unit and potential hazards. As you familiarize yourself with the various features and functionality of this mower, please take note of the subjects and specific instructions that include these images...

! DANGER

...WILL cause serious or fatal injury if the instructions are not followed.

! WARNING

...CAN cause serious or fatal injury if the instructions are not followed.

Safety Labels

On the unit itself, there are additional labels that identify important safety issues. The following one refers to the hazards of the cutting blades:



The following label identifies important instructions related to the operation of the mower:



Safety Precautions & Training

! WARNING

Understand the operation of all controls and learn how to stop the engine and mower quickly in case of emergency. Make sure the operator receives adequate instruction before operating this unit. When instructions refer to the left or right side of the unit, it means as standing behind at the normal operation position.

Safety Precautions & Training

1. Read all information contained in this manual and the engine manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate mower.
3. Never operate this unit when you are tired, ill or under the influence of alcohol, drugs or medication.
4. Never try to mow across excessively steep terrain. On inclines, keep the unit in front / below and maneuver in a pendulum motion.
5. Keep area of operation clear of all persons, particularly small children and pets.
6. Never operate the mower without proper guards / shields in place.
7. Thoroughly train anyone using the mower. Make sure all mower operators know the safety, operating and maintenance procedures.
8. Never leave the mower unattended with the engine running.
9. Mow only in daylight or in good artificial light.
10. Always be sure of your footing. Keep a firm hold on the handle and never run with the unit.
11. Do not operate mower when barefoot or wearing open sandals. Always wear substantial footwear, and pants or slacks that cover your legs when operating mower.
12. Material may ricochet back toward the operator. Do not operate over gravel surfaces.

Preparation & Inspection

⚠ WARNING

1. Thoroughly inspect the area where mower is to be used, and remove all stones, sticks, wire, bones and other foreign objects which might be thrown. Never operate the unit over gravel.
2. Check fuel before starting engine. Do not fill gasoline tank indoors, or when engine is running. Wait until engine has been allowed to cool for several minutes. Clean off any spilled gasoline before starting engine.
3. Make the unit is on a flat level surface before starting engine.
4. Inspect the unit to verify the controls, safety switches and handles are assembled properly. Do not operate unless they are functioning properly.
5. If the machine should start to vibrate abnormally, stop the engine and check for the cause immediately.

6. Use care when loading or unloading the machine into a trailer or truck.
7. Never operate machine in an enclosed area.
8. Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
9. Never tamper with safety devices. Check their proper operation regularly.
10. Keep machine free of grass, leaves, or other debris build-up – especially the recoil starter area of the engine. Clean up oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing in an enclosed space.
11. Never make any adjustments or repairs with the engine running. Disconnect the spark plug wire to prevent unintended starting.
12. Do not change the engine throttle setting or over-speed the engine.
13. Maintain or replace safety and instruction labels, as necessary.
14. If gasoline is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until the gasoline vapor has dissipated.
15. Before using, always visually inspect to see that the blade(s), bolts, and spacers are not worn or damaged. Replace a worn or damaged blade(s).
16. Stop the engine if the machine must be tilted for transportation when crossing surfaces other than grass, and when transporting the machine to and from the area to be mowed.

Engine Operation

IMPORTANT – THIS IS A 2-STROKE ENGINE THAT REQUIRES MIXED FUEL OF GASOLINE AND 2-STROKE OIL FOMULATED FOR USE IN HIGH-PERFORMANCE AIR-COOLED ENGINES.

Review the complete operation and safety instructions provided in the Maruyama engine owner's manual – which is included in the information packet of this unit.

Any service, warranty or replacement parts issues for the engine should be directed to Maruyama Authorized Service Dealers. More information can be found on their website at:

Maruyama-us.com



Operating Controls

⚠ WARNING

Make sure the handle sections are properly tightened in the upright position before starting engine and do not operate the unit if the engine stop lever is damaged or not functioning correctly.

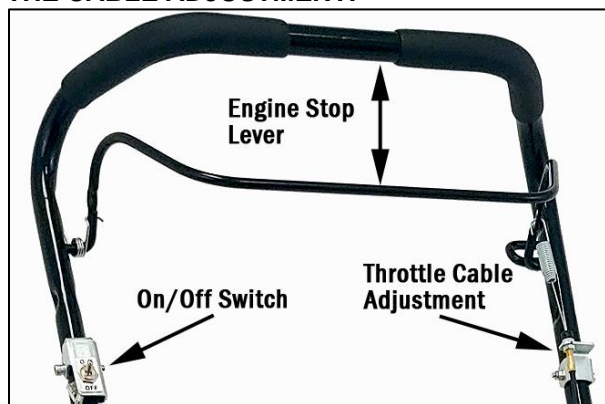
1. Engine Stop Lever

This lever allows the engine to start and run at its optimum speed. It will also stop the engine and the rotation of the cutting blades when released:



2. Engine On/Off Switch / Throttle Cable

The switch is connected to the ignition system with on and off positions. The throttle is set up to provide the optimum engine speed when the stop lever is fully squeezed against the handle and stop the engine when released – **THIS CAN BE ADJUSTED USING THE CABLE ADJUSTMENT:**



Mower Operation

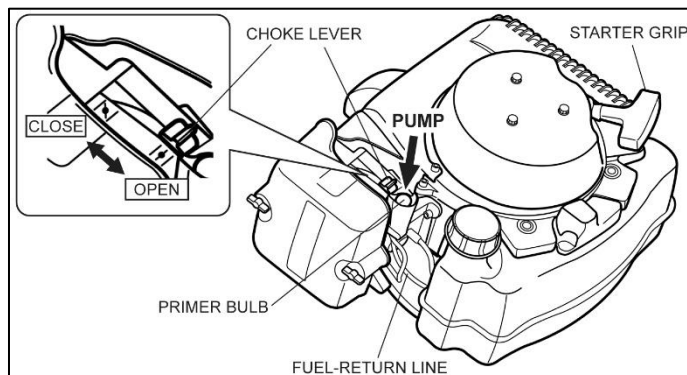
⚠ WARNING

Make sure the ground is flat and clear of debris and do not attempt to start on a sloped / inclined surface. Make sure the fuel tank cap is properly installed and tightened.

NOTE: FOLLOWING IS A SUMMARY OF THE ENGINE STARTING PROCEDURES. FOR MORE DETAILED INFORMATION, REFER TO THE MARUYAMA ENGINE OPERATOR'S MANUAL.

1. Cold Starting

- Set the on/off switch to "ON"
- Press the primer bulb multiple times until fuel can be seen flowing through the return line to the tank (clear flow with no bubbles).
- Move the choke lever to the "CLOSED" position



- While standing on the right side of the unit, place your foot on the edge of the deck while simultaneously gripping the engine starter handle and the engine stop lever against the handle to hold the unit before pulling the recoil starter:



Pull the starter rope out slowly about 6-8" before beginning the full pulling motion and do not pull it all the way out. After the engine has started, move the choke lever to the OPEN position, then carefully move behind the unit while continuing to hold the stop lever against the handle and adjusting your grip position using **both hands**.

Mower Operation (continued)

⚠ WARNING

Always maintain a firm grip on the handle and engine stop lever and keep the unit in front of you. If the engine does not start after 4-5 pulls, make sure the on/off switch is on and repeat the priming steps. If mower should vibrate abnormally, stop the engine and check for the cause. Vibration is generally a sign of an issue with the impeller fan or cutting blade underneath the deck. Make sure the engine stops completely when releasing the lever.

2. Mowing

⚠ DANGER

Always use both hands when operating the unit. Steep slopes are a major factor related to slip and fall accidents, which can result in severe injury. Operation on all slopes requires extra caution. Avoid operating the mower at an angle greater than 45 degrees or above your position. If you feel uneasy on a slope, do not mow it. Do not pull the unit directly backwards when mowing.

- Always keep the unit below your position moving it with side-to-side motion like a pendulum. 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 wet grass on excessively steep slopes. Poor footing could cause a slip and fall accident.
- Take extra caution near drop-offs, ditches, or embankments. Wear shoes with traction as you could lose your footing or balance.
- When cutting steeper inclines from the top of the slope and a longer reach is needed, never tie a rope to the unit. Use the handle extension kit option (order #4012561-M):

If striking a foreign object, stop the engine, remove wire from spark plug, thoroughly inspect mower for damage. Repair damage before restarting engine. Watch out for traffic when working near roadways.

For best performance, install new blades before the cutting season begins. Replace the blades when necessary, with replacement blades.

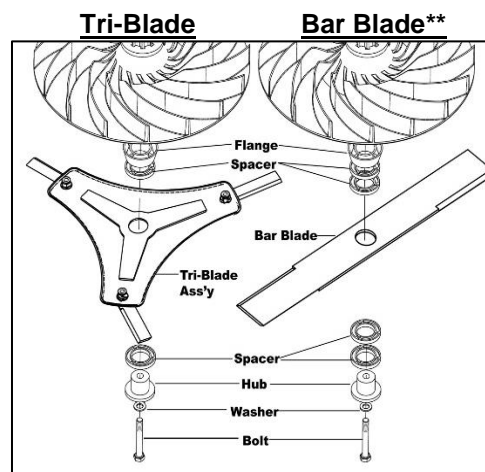


⚠ WARNING

Stop the mower and allow the engine to cool before making inspections or adjustments, and when transporting. If the engine does not stop, move the CHOKE lever to the starting (closed) position. Have the unit immediately inspected by an Authorized Service Dealer.

3. Cutting Height Adjustment

The unit's cutting height is adjusted by removing the cutting blade and placing the spacers on either side:



** Shown with optional Low-Cut Kit #LC-190

Loosen and remove center bolt to disassemble the components. Placing all the spacers **above** the blade will provide the **lowest** cutting height; placing all the spacers **below** will provide the **highest** cutting height.

IMPORTANT! Always install the tri-blade assembly with flail blade mounting nuts facing upward (toward impeller / engine). The mounting components: hub, spacers, tri-blade assembly / bar blade and flange, must be installed, aligned, and seated properly before tightening the bolt.

4. Transporting

An optional wheel kit (order #4041500) is available for quick and easy transporting:



Mower Maintenance

The following maintenance topics are general practices that owners can do to keep the mower in good working condition. For any service or repair issues beyond these, it is recommended that the unit be inspected by an Authorized Greenman Dealer.

⚠ WARNING

IMPORTANT: Avoid damage! Operating in extreme conditions may require more frequent service intervals. Engine components may become dirty or plugged when operating in extreme heat, dust or other severe conditions.

DAILY INSPECTION FOR COMMERCIAL USE EVERY 8 HOURS FOR NON-COMMERCIAL USE

1. Check engine and air cleaner per the engine manufacturer's instructions.

2. Inspect the cutting blades for damage and movement – NOTE: the blades are reversible and use only genuine Greenman replacement parts. Do not operate the unit without tri-blades or bar blades properly installed.
3. Remove debris and grass from the engine mounting base area and the engine air intake – which is part of the recoil starter.
4. Check the impeller and mower deck for cracks or damage.
5. Check the tightness of the handle mounts.
6. Clean excess grass buildup from the underside of the deck.

The parts manual is available for download and replacement parts are available using the website:

GreenmanGolfTurf.com

LIMITED WARRANTY STATEMENT

Greenman Golf & Turf Solutions hereby warrants Greenman brand products to be free from defects in material or workmanship for a period two years after purchase for non-commercial / non-rental consumer use. **This warranty applies only to non-engine components and functions.** The engine warranty coverage is provided by the respective manufacturer and is subject to their specific requirements and conditions. If the product is used in a commercial application, the warranty period shall be one year after purchase. Consumer use under the terms of warranty is defined as operation at a personal home or residence. Commercial application under the terms of warranty is defined as use in conjunction with an income producing business or commercial, institutional or municipality grounds maintenance.

This warranty is limited to repair or replacement by Greenman Golf & Turf Solutions or at the premises of Greenman Authorized Service Dealers, of such parts as appear upon inspection, to be defective in material and/or workmanship. The above warranties are extended only to the first end user, and no warranty is made nor authorized to be made assignable on resale. Greenman Golf & Turf Solutions makes no warranty with respect to replacement parts not manufactured or sold by it. Such parts are subject to the warranty policy of their respective manufacturers. For the name and address of your nearest Authorized Service Dealer, contact Greenman Golf & Turf Solutions at: 1028 4th Street SW, Building A, Auburn WA 98001, (253) 333-3345 or online at <http://greenmangolfturf.com>. To obtain performance of any obligation under this warranty for failure during the applicable warranty period, deliver the product, shipping prepaid, to Greenman Golf & Turf Solutions, or to the nearest Authorized Service Dealer. Warranty coverage is conditioned upon the first end user furnishing Greenman Golf & Turf Solutions or its Authorized Service Dealer with adequate written proof of the original purchase date. Greenman Golf & Turf Solutions reserves the right to inspect the claimed defective part(s) to determine if the malfunction is the result of a defect covered by this warranty.

This warranty will cover only defects arising under normal usage, and shall not apply, nor will Greenman Golf & Turf Solutions assume any responsibility, if the failure was caused by the following:

1. Operation of product without proper lubrication.
2. Misuse, abuse, or negligence.
3. Accident or physical damage.
4. Repairs made by unauthorized parties and/or with unauthorized parts.
5. Improper unit set up or altered components.
6. Improper adjustments i.e., blades, drive system, levers, cables, nozzles, pump motors, etc.
7. Operation of engine at speeds above the manufacturer's recommendations.
8. Failure to operate or maintain the unit in the manner specified by the owner's manual.

Inspection, service, and adjustments to normal maintenance items such as cables, grease fittings, blades, nozzles, lines, battery, engagement levers, etc. are not considered the responsibility of Greenman Golf & Turf Solutions under this warranty.



HOVER MOWER OPERATOR'S MANUAL

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, OBLIGATIONS, OR LIABILITIES. ANY IMPLIED WARRANTIES, OBLIGATIONS, OR LIABILITIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE APPLICABLE WARRANTY PERIOD FOR THE FIRST END USER (TWO YEARS FOR NON-COMMERCIAL USE; 1 YEAR FOR COMMERCIAL USE. ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE MUST BE BROUGHT WITHIN A PERIOD OF SIX MONTHS FROM THE END OF THE APPLICABLE WARRANTY PERIOD.

Some states do not allow limitations on how long an implied warranty lasts, so the previously stated limitations may not apply to you. No agent, representative, dealer, or employee of Greenman Golf & Turf Solutions has the authority to increase or alter the obligations of this warranty.

IF THE PRODUCT IS USED PRIMARILY IN A COMMERCIAL APPLICATION, GREENMAN GOLF & TURF SOLUTIONS WILL NOT BE LIABLE FOR GENERAL DAMAGES INCLUDING BODILY INJURIES, EXCEPT AS SET FORTH ABOVE, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF USE, LOSS OF PROFITS, LOSS OF PRODUCTION, EXPENSE OF SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS OR DAMAGE. THE SAME LIMITATIONS SHALL APPLY TO A PRODUCT USED FOR CONSUMER PURPOSES WITH RESPECT TO ALL NON-PERSONAL INJURY, GENERAL INCIDENTAL AND CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.