

WARNING HOVER MOWER WEED CUTTER

Any piece of equipment can be dangerous if not operated properly. **YOU** are responsible for the safe operation of this equipment. The operator must carefully read and follow any warnings, safety signs and instructions provided with or located on the equipment. Do not remove, defeat, deface or render inoperable any of the safety devices or warnings on this equipment. If any safety devices or warnings have been removed, defeated, defaced or rendered inoperable, **DO NOT USE THIS EQUIPMENT!!!**

WARNING! This product contains or produces one or more chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

<<<DANGER>>> <<<DANGER>>> <<<DANGER>>>

With all mowers, mower attachments and other rotary cutting devices, there is a chance of objects **being shot out at high speeds. These objects could cause serious injury or death to the operator or bystanders.** Thoroughly inspect the area where the equipment is to be used. Clear it of objects such as rocks, toys, wire, bones, sticks, etcetera. Always wear safety goggles and other protective clothing. Keep children, animals and others at least 50 feet away at all times.

Use extreme caution whenever operating, moving, loading or unloading this equipment. During and after operation the Muffler and other components are Extremely Hot and will cause Serious Burns. Never operate power equipment of any kind if you are tired or if you are under the influence of alcohol, drugs, medication or any substance that could affect your ability or judgment. Be alert! If you get tired while operating this equipment, take a break. Tiredness may result in loss of control.

Provide adequate ventilation when operating this equipment. Internal combustion engines consume oxygen and give off deadly carbon monoxide gas.

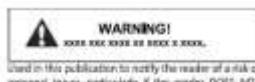
Do not tape down or otherwise by-pass any safety devices! Always operate this equipment from the designated operators position. Use extreme caution: Keep your hands and feet clear of the cutting area at all times.

IMPORTANT SAFETY RULES TO FOLLOW

1. Be familiar with the area you are going to cut weeds. Cut only in daylight.
2. Before cutting weeds make sure the area is clear of solid objects and debris that could be thrown or damage the machine.
3. Do not cut when raining or when weeds are wet.
4. Do not operate the weed mower without deflectors or shields in place.
5. Before beginning work, check weed mower to make sure no damage has occurred in transit to controls or safety devices.
6. **ALWAYS WEAR PROTECTIVE EYE DEVICES INCLUDING A FACE SAFETY SHIELD.**
7. Do not allow children to operate weed mower. Keep others, especially children and pets, safely away from work area. Do not operate in proximity of windows or other breakable items.
8. Do not wear loose fitting clothes that could get caught. Wear long sleeve shirts, long pants and boots when operating a weed mower.
9. Never cut weeds by pulling the mower toward yourself. Cut across the face of slopes, not up or down. Do not cut weeds on excessively steep slopes.
10. Always be careful of your footing, especially on slopes.
11. Before handling the weed mower in any way, shut the engine off and wait until the cutting wheel has come to a complete stop.
12. Stop the engine whenever you leave the mower.

If the person receiving this handout will not be the user of the equipment, forward these instructions to the operator. **IF** there is any doubt as to the operation or safety of the equipment, **DO NOT USE!!! CALL A TOOL SHED IMMEDIATELY!!! FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN INJURY OR DEATH**

Symbols and Decals



Safety Decals and Machine Mounted Instructions



Read the manual.

Wear safety glasses, hearing protection and other required safety equipment.

Be careful of discharged objects. When the mower is in operation, keep persons and animals away.

Be careful when you operate the mower on slopes. To prevent slips or falls, only mow when the grass is dry.

DANGER:
Keep heads and feet away. Injury or death can occur from contact with the blade or from the objects discharged from the mower.



Safety

General Use

The object of this manual is to help you use your BlueBird machine safely and to provide information about how to maintain the machine. Please read the manual carefully before attempting to use the machine.

If after reading the operator's manual you are still unsure about the safety risks associated with use of the machine, you should not use the machine. Please contact your dealer for more information.

These safety instructions only address the basics for safe use. It would be irresponsible in the safety instructions to describe all possible risk situations that could arise when using the machine. You can however prevent accidents by always using common sense.

To obtain extra copies of the operator's manual, please contact your dealer.



Under no circumstances may the original design of the machine be modified without written approval from the manufacturer. Such modifications not only affect the performance and durability of the machine but involves pose a safety risk for users and those in the vicinity. Unauthorized modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage. Modifying the machine without written approval from the manufacturer may void the guarantee.

IMPORTANT INFORMATION

Do not use the machine until you have read the operator's manual carefully and understand the instructions given.

All maintenance work or adjustments not described in this manual must be performed by an authorized BlueBird service workshop.

- Read this manual carefully and make sure you understand it before using the machine or performing any maintenance. If the user cannot read this manual, it is the responsibility of the machine owner to explain the contents to the user.
- Follow all safety instructions. Failure to do so may result in injury to yourself or others.
- Accident prevention regulations, other general safety regulations, occupational safety rules and traffic regulations must be followed without fail.
- All users shall be trained in use of the machine. The owner is responsible for training users.
- Engage an authorized BlueBird workshop for all service and repair not described in this manual.

Safety

- BlueBird original spare parts are designed and specified to maintain high quality and correct fit for optimal durability and lifespan. From a safety point of view, you should only use BlueBird original spare parts.
- Check that all safety decals are in place. See the chapter Symbols and Decals.
- Learn how to use the machine and its controls safely and learn to recognize the safety decals.
- Check that the machine is in serviceable condition prior to use; see Maintenance Schedule in the Maintenance chapter.
- Only use the machine in daylight or in other well-lit conditions. Keep the machine a safe distance from holes or other irregularities in the ground. Pay attention to other possible risks.
- Only allow the machine to be used by adults who are familiar with its use and understand the instructions.
- Never allow persons not trained in the use of the machine to service it.
- Never allow children or persons not trained in the use of the machine to use it. Local laws may regulate the age of the user.
- People and animals can distract you causing you to lose control of the machine. For this reason, you should always concentrate and focus on the task at hand.
- Never leave the machine unsupervised with the engine running.
- Make sure that other people are nearby when you are using the machine so that you can call for help should an emergency arise.
- Remember that the operator or owner is responsible for accidents or hazards that occur to other persons or their property.
- The machine is tested and approved only with the equipment originally provided or recommended by the manufacturer.



The engine can become very hot. To avoid being burned, you must turn off the engine and wait until all parts have cooled before touching the engine.



Overexposure to vibration may lead to circulatory or nerve damage, particularly in people who have impaired circulation.

Contact your doctor if you experience symptoms that could have been caused by overexposure to vibration. Examples of common symptoms include numbness, pain, muscle weakness, change of skin color or an uncomfortable feeling of tingling. These symptoms appear most frequently in the fingers, hands or wrists.

Safety

Preparations

- Have first aid equipment at hand when using the machine.
- Check that nobody else is in the vicinity of the machine when you start the engine, engage the drive or run the machine.
- Do not operate the equipment with the OPC system disconnected or if the system does not operate correctly. Do not disconnect or prevent the operation of any switch.
- Keep animals and people a safe distance from the machine.
- Clear the area of objects such as stones, toys, steel wire, etc. that could become caught in moving machine parts and thrown out.
- Find and locate all fixed objects in the ground, such as sprinkler systems, poles, water valves, bases for washing lines, etc. Be certain to check for hidden electrical cables or similar in the surface of the lawn. Always run the machine around these objects. Never intentionally run the machine over foreign objects.
- Ensure that all guard plates and protective shields are in place and intact when using the machine. Ensure that all protective devices are in place when the machine is in use.
- Remove loose clothing or jewelry and secure long hair that can catch in moving machine parts.
- Wear protective shoes or boots. It is recommended that the footwear have anti-slip with steel toes. Never use the machine when barefoot.
- Wear approved ear protection when running the machine. Ask your dealer about approved ear protection.
- Observe all safety instructions; otherwise you may injure yourself or others around you.
- Make sure that the machine is in serviceable condition prior to use.
- Inspect the mower before you attempt to use it. Check the engine oil level. Fuel is flammable. Use caution when you add fuel to the mower.
- Stop the engine and wait until all machine movement comes to a standstill before service, adjustment or cleaning.
- Do not run the engine in poorly ventilated spaces. Avoid slopes that are too steep to use the machine safely.

WARNING!

Always use approved protective clothing and approved protective equipment when using the machine. Protective clothing and protective equipment cannot eliminate the risk of accidents, but wearing proper clothing and the correct equipment will reduce the degree of injury should an accident occur. Ask your dealer about approved protective clothing and approved protective equipment recommended by the manufacturer.



801-0198



801-0179

Safety

Operating

- Do not use the machine if you are tired, if you have consumed alcohol, or if you are taking other drugs or medication that can affect your vision, judgment or co-ordination.
- Never use the machine indoors or in spaces lacking proper ventilation.
- Do not use the machine on any surfaces other than grass.
- Make sure you have a proper foot-hold when using the machine, particularly when backing. Walk, don't run. Never work on wet grass. Floor traction may cause you to slip.
- Keep your hands and feet away from moving parts.
- Keep your hands and feet away from the cutting blade.
- Slow down and be especially careful on slopes. Make sure to run the machine in the recommended direction on slopes. Be careful when working close to sudden changes in level.
- To protect against loss of control:
 - Operate the mower across the face (horizontally), not up and down (vertically)
 - Do not start or stop suddenly on slopes
 - Decrease the speed when you operate the mower on slopes as you must turn. Use caution when you change direction. Turn condition can change the stability of the mower.
 - Use caution when you operate the mower near drop-offs, ditches or embankments
 - Be careful of holes in the terrain or undulated surfaces or any other hazards that are not visible.
- Smoking, open flames or sparks in the vicinity of the machine are strictly forbidden. Gasoline is extremely flammable and carelessness in handling can result in personal injury or fire.
- Stop and inspect the equipment if you run over or injury anything. If necessary, make repairs before beginning again.
- Whatever happens, you should always park the machine on even ground, turn off the engine and wait until all moving parts have stopped before leaving the operating position behind the machine.

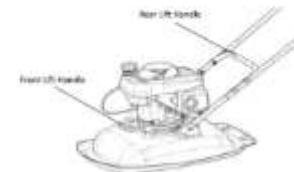
WARNING!

Engine exhaust, some of its constituents and certain vehicle components contain or emit chemicals considered to cause cancer, birth defects or other reproductive harm. The engine emits carbon monoxide, which is a colorless, poisonous gas. Do not use the machine in enclosed spaces.

Safety

Movement/Transport

Your machine is equipped with an integrated front lifting handle and rear crossbar handle. Use these lift points when loading or unloading your mower onto a trailer or cart.



When using a trailer, use straps, cables or ropes to fasten the mower to the trailer. Always check that you are in compliance with applicable traffic regulations before transporting the machine.

Be careful and use safe lifting and moving techniques when loading/unloading the machine.

Storage

- Allow the engine to cool before storing the machine. Never store the machine near an open flame.
- Store the machine with the fuel valve closed.
- Store the machine and fuel in such a way that there is no risk that leaking fuel or fumes can come in contact with flames or sparks from electrical machines; electric engines; relays, switches, boilers or similar.
- Store the machine in a locked space away from children and adults untrained in use of the machine.

Children

Serious accidents can occur if you fail to be on guard for children in the vicinity of the machine. Never assume that children will stay put where you last saw them.

- Keep children away from the machine.
- Keep children away from the work area and under close supervision by another adult.
- Keep an eye out and shut off the machine if children enter the work area.
- Never allow children to operate the machine.
- Be particularly careful near corners, bushes, trees or other objects that block your view.

Safety

Fuel System



WARNING!

Gasoline and gasoline fumes are poisonous and extremely flammable. Be especially careful when handling gasoline, as carelessness can result in personal injury or fire.

- Only store fuel in containers approved for that purpose.
- Never remove the fuel cap and fill the fuel tank when the engine is running.
- Always stop the engine when refueling.
- Do not smoke when filling the gasoline tank and do not pour gasoline in the vicinity of sparks or open flame.
- Never fill the fuel tank indoors.
- Before starting the machine after refueling, it should be moved at least 10 feet (3 m) from the location where it was filled.
- Turn off the fuel supply for storage or transport.
- If leaks arise in the fuel system, the engine must not be started until the problem has been resolved.
- Check the fuel level before each use and leave space for the fuel to expand, because the heat from the engine and the sun can otherwise cause the fuel to expand and overflow.
- Avoid overfilling. If you spill gasoline on the machine, wipe up the spill and wait until it has evaporated before starting the engine. If you spill gasoline on your clothing, change your clothing.



WARNING!

Wait until all moving parts are completely still before performing maintenance on the machine. Turn off the engine and remove the spark plug cable.

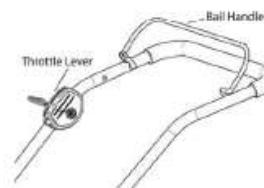
Maintenance

- Never make adjustments with the engine running.
- Disengage the drive units, shut off the engine and wait until all moving parts come to a complete stop before making adjustments, performing maintenance or cleaning the machine.
- Disconnect the spark plug cable before beginning repair work.
- Keep all components in serviceable condition and make sure all nuts, bolts, etc. are tight. Replace worn or damaged decals.
- Be careful when checking work tools. Use gloves when performing maintenance work.
- Never allow persons not trained in the use of the machine to perform service on it.
- Always park the machine on even ground before performing maintenance or making adjustments.
- Do not disassemble the engine. This can invalidate the engine warranty. Contact the dealer with any questions regarding service or guarantee matters. Follow all maintenance instructions.
- Do not change the setting of governors and avoid running the engine with overly high RPM's. If you run the engine too fast, you risk damaging the machine components.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be run with defective or disassembled safety equipment.
- The muffler is designed to maintain sound levels at an approved level and keep direct exhaust away from the user. Exhaust gases from the engine are extremely hot and may contain sparks that can cause fires or burn the user.
- Never use a machine with a defective muffler.
- Reduce the risk of fire by removing grass, leaves and other debris that may have caught in the machine.

Controls

OPC (Operator Presence Control)

The bail handle controls the OPC system. The bail handle must be fully engaged (closed) before the engine will start. When the bail handle is released, the engine must stop within 3 seconds.



20" HM200 Handle



16" HM160 Handle

Throttle Lever (20" HM200 Only)

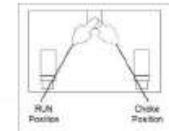
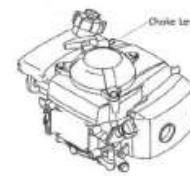
The throttle lever on your mower controls the engine speed. To increase engine speed, push the throttle lever forward to the "run" detent position. To decrease the engine speed, pull the throttle lever back towards the operator.

When you start a cold engine, pull the throttle lever completely toward the operator (HM200 only) until the throttle lever is in the "choke" detent position. This closes the choke plate. Once the mower starts, slowly push the throttle to the "run" detent position to increase the engine speed as the engine becomes warm.

Choke Lever (16" HM160 Only)

When starting a cold engine on your HM160, move the choke lever to the "CHOKE" position. Slowly slide the choke lever to the run position as the engine becomes warm.

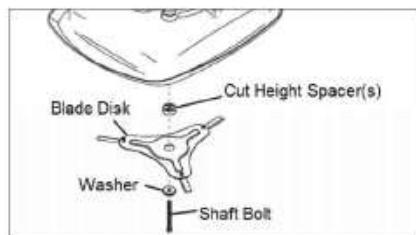
The mower is designed to run at full throttle. For optimal performance Bluebird recommends that the engine speed is at full throttle whenever the mower is in use.



Controls

Adjusting the Height of Cut (HOC)

1. Stop the engine, close the fuel shut-off valve and disconnect the spark plug wire.
2. Tilt the mower up on its left edge so the air filter and carburetor are facing up and away from the ground in order to access the underside of the deck housing.
3. Remove the engine shaft bolt, disc washer and blade disc.
4. Refer to the cut height chart and install the correct number of cut height spacers between the blade disc and the impeller fan, ensuring that all spacers are fully seated together and fully seated through center pilot hole in the blade disc.
5. Using the correct length engine shaft bolt for your desired height of cut, seat the blade disc onto cut height spacer, install disc washer and proper engine shaft bolt. Tighten shaft bolt to factory recommended torque settings listed below. Failure to properly tighten shaft bolts to required torque can result in injury or product damage.
 - 20" HM200 – 38-40 ft. lb. (51-54 Nm.)
 - 16" HM160 – 12-14 ft. lb. (16-19 Nm.)



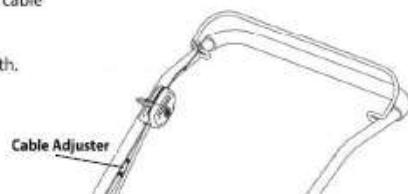
WARNING!

The blades have sharp edges. Never touch or hold blades without proper protective gear. To prevent injury, use caution when servicing or holding the blade.

Height of Cut (HOC)	Spacers	Engine Shaft Bolt 20" HM200	Engine Shaft Bolt 16" HM160
3 inch (7.6cm)	0	3/8-24 x 3-1/2 inch (8.9 cm)	1/4-28 x 2-3/4 inch (7 cm)
2-1/2 inch (6.4cm)	1	3/8-24 x 3-1/2 inch (8.9 cm)	1/4-28 x 3-1/4 inch (8.3 cm)
2 inch (51 cm)	2	3/8-24 x 4-1/2 inch (11.4 cm)	1/4-28 x 3-3/4 inch (9.5 cm)
1-1/2 inch (3.8 cm)	3	3/8-24 x 4-1/2 inch (11.4 cm)	1/4-28 x 4-1/4 inch (10.8 cm)
1 inch (2.5cm)	4	3/8-24 x 4-1/2 inch (11.4 cm)	1/4-28 x 4-3/4 inch (12.1 cm)

Adjusting Bail Cable Tension to remove excess movement

1. Make sure the bail cable is inserted in the correct slot in the throttle lever.
 - When the standard handle is installed, the bail cable must be in the upper slot.
 - When the optional tapered handle is installed, the bail cable must be in the lower slot.
2. Use the cable adjuster as required to adjust the cable length.
3. Test the operation of the OPC handle.
 - When the bail is open, the engine must not start.
 - When the bail is closed, the engine will start.
 - When the bail is released, the engine must stop.



Operation

General

1. Do not allow the engine to "lug". The engine should run at full RPM under load. Allow the engine to run at high RPM to maintain power level and proper level of lift to ensure smooth operation and optimal performance.
2. Lowering the RPM will cause performance issues and will cause the unit to drag excessively and not perform to its potential.
3. Never operate the engine without enough ventilation or in an enclosed area. The carbon monoxide in the exhaust fumes can increase to dangerous levels.
4. Keep your hands and feet away from moving parts and the cutting units. Do not make adjustments to the mower with the engine started.
5. Do not operate the mower with loose or damaged components. All components must be properly fastened to the mower.
6. Inspect the area to find the safest procedure for the mower. Check the height of the grass, the type of terrain and the conditions of the surface. Each condition needs the correct adjustments and precautions.
7. First cut in a test area so that you completely understand the operation of the mower and controls.
8. Mow when the grass is dry to get the best results.
9. Do not release the cut grass in the direction of persons or allow persons near the mower while in operation. The owner and operator are responsible for injuries caused to persons near the mower and any damage to their property.
10. Be careful when you operate near to gravel areas (roads, parking areas, cart paths). Stones released from the equipment can cause injuries to persons and cause damage to the equipment.
11. When you are not mowing grass, always stop the engine.
12. When you hit an object or mower starts to cause vibration that is not normal, inspect the mower for damage and make repairs.
13. Walk slowly and be careful when you operate on the slopes or near sharp edges.
14. Never use your hands to clean the blades. Use a brush to remove the grass clippings from the blades. The blades are sharp and can cause injuries.



WARNING!

Always use approved protective clothing and approved protective equipment when using the machine. Protective clothing and protective equipment cannot eliminate the risk of accidents, but wearing proper clothing and the correct equipment will reduce the degree of injury should an accident occur. Ask your dealer about approved protective clothing and approved protective equipment recommended by BlueBird.

IMPORTANT INFORMATION

Clear the lawn of any debris. Clearly mark rocks and other fixed objects. Be especially sure to check for hidden electrical cables or similar in the lawn.



WARNING!

Before you clean, adjust or repair this equipment, always stop the engine, close the fuel shut-off valve and disconnect the spark plug wire.

Operation

To Stop the Engine

1. Release the bail lever to stop the engine. Allow the engine to settle to the ground and all movement stop.
2. Move the fuel shut-off valve to the closed position.
3. 16 inch Hover Mower: Close the fuel cap breather valve.

To Mow

1. Move the mower to the area to be mowed. Start the engine.
2. To get the best results and highest quality of cut, start at the outer edge of the area to be mowed. Mow from the left side to the right side in decreasing sized half circles starting at the edge of your turf and work inwards. When you follow this pattern, the mulching performance of the mower improves.
3. Do not cut off more than 1/3 of the length of the blade of grass. Cutting more than 1/3 of the blade length can damage the health of your turf. Hover mowers do an excellent job mowing grass over mixed surfaces; make sure that the surfaces are level to each other and are free from branches, rocks and debris.
4. You can trim around the trees and bushes in half circle motions.
5. Use caution and be aware of your footing when you operate the mower on slopes. Move the hover mower from the right to the left side along the slope. Stand at the top of the hill. Start at the bottom of the slope and work your way to the top. When you must mow on steep or deep slopes, use the handle extension kit for easy and safe operation.
6. Always stay above the mower when you mow on slopes.
7. To mow around trees and flower bed edges: Walk forward while you pull the hover mower towards you in a clockwise direction around the edge. Mow from the left side to the right side so that the rotation of the blades throws any grass or debris away from the bed. The hover mower deck must never be more than 3 to 4 inches (7.5 to 10 cm) over the edge of the bed edge.
8. To trim around surface transitions: When the turf is the same level as the path, move the hover mower slowly towards the grass edge, the airflow will raise the overhanging grass and it will create a neat and quality cut.

WARNING!

To prevent injuries, when the blades rotate, keep your hands, feet and clothing away from the cutting unit.

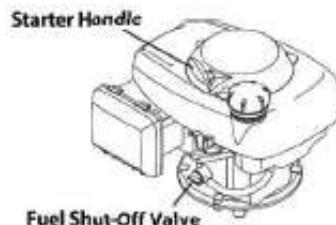
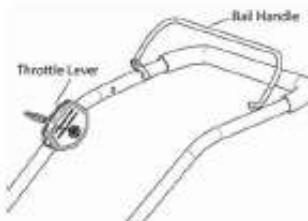
NEVER use your hands to clean the cutting units. Use a brush to remove grass from the blades. The blades can be sharp and can cause injury.

Only mow when the grass is dry.

Make sure of your footing when you operate on slopes. Operation on slopes needs caution. If you are not comfortable when you operate on a slope, do not mow the slope.

Always stay above the mower when you mow on slopes. Keep the mower pointing down when you mow on slopes. Never mow by pushing the hover mower up a slope.

Mow across slopes horizontally, not vertically.



Operation

Starting the Engine

20" HM200

1. Start the engine with the operator behind or on the right side of the mower.
2. Check the engine oil level.
3. Check fuel level. Make sure fuel shut-off valve is in the OPEN position
4. When you start a cold engine, pull the throttle lever completely toward the operator to close the choke plate.
5. Pull and hold the bail handle against the upper handle. Move the handle to the upright position.
6. Place your foot firmly on the rear or right side surface of the deck.
7. Slowly pull on the starter handle until resistance is felt, then pull firmly. Do not allow the starter handle to snap back into the recoil starter. Repeat until the engine starts.
8. When the engine starts, slowly push the throttle lever forward to increase the engine speed as the engine becomes warm.