



GRASS TRIMMER & BRUSH CUTTER

GBC 43 / GBC 52

Instruction manual



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INTRODUCTION

Thank you for your purchasing the brush cutter of our company. The present manual explains how to handle the brush cutter well. Before using it, please read this operator's manual carefully, operate the machine correctly and engage in your task with safety.

By the way, due to changes of specifications, all details of your machine may not agree with this manual. Please understand accordingly.

Note: National regulation can restrict the use of the machine.

INTENDED USE

This appliance is designed for the following applications:

- Brush cutter (when fitted with metal circular blade)

The brush cutter is intended to cut weed and climbing plants. Do not use it for other purposes, never use it for cutting wood. Never cut objects with a diameter exceeding 13mm.

- Grass trimmer (when fitted with nylon line cutting head)

The grass trimmer is intended for trimming grass. Do not use it for other purposes.

TECHNICAL DATA

MODEL		GBC 52	GBC 43
Main unit	Remote type	Centrifugal Clutch; flexible shaft	
	Maximum speed of linker shaft /engine speed(min^{-1})	8000/10000	
	Idle speed of engine(min^{-1})	3000	
	Centrifugal speed of clutch engagement (min^{-1})	3800	
	Vibration (in accordance with ISO 22867):	Brush cutter: - Left handle: 3.926 m/s^2 , - Right handle: 4.183 m/s^2 , Grass trimmer: - Left handle: 4.809 m/s^2 - Right handle: 5.110 m/s^2	
	- Uncertainty K	1.5 m/s^2	
- Sound pressure level LpA	Brush cutter: 93.1dB(A) Grass trimmer: 93.4dB(A)	Brush cutter: 97 dB(A) Grass trimmer: 98 dB(A)	

	- Sound power level LwA	Brush cutter: 107.94dB(A) Grass trimmer: 108.24dB(A)	Brush cutter: 110 dB(A) Grass trimmer: 112 dB(A)
	- Uncertainty K	3 dB(A)	
	Guaranteed Sound power values [dB(A)] (in accordance with 2000/14/EC)	115dB(A)	120dB(A)
	Line Max. Cutting Path /Diameter of nylon line	44 cm(ϕ 2.5mm)	
	Metal blade (Type/Diameter)	3-tooth metal blade 1.4x230mm / 230mm	
	Rotation direction of cutting device	Counter-Clockwise (seen from the top)	
	Weight when dry(kg)	7.3	
Engine	Name of engine	SPK44F	SPK1E40F for 10SPK SPK1E40F (1) for 30SPK
	Type	Air-cooled; 2 cycles; vertical Piston valve; gasoline engine	
	Displacement(cm ³)	52	43
	Maximum output (kW/ min ⁻¹) (in accordance with ISO 8893)	1.3/7500	1,23/7500
	Specific fuel consumption at max. engine performance (g/kwh)	≤695	≤610
	Carburetor	Diaphragm-type	
	Ignition	Non-contact electronic ignition	
	Method of starting	Recoil type	
	Fuel used	Gasoline mixed with lubricating oil (ratio of 40:1)	
	Fuel tank capacity(cm ³)	1200	

Technical Data subject to changed without notice

GRAPHIC WARNINGS

Because a trimmer/cutter is a high-speed, fast cutting power tool, special safety precaution must be observed to reduce the risk of personal injury. Read this manual carefully. Be familiar with the controls and the proper use of the unit. Know how to shut it off, and how to unhook a harnessed unit quickly.



- Warning



- Read the instruction manual



- Wear eye protection, ear muffs and helmet



- Wear foot protection



- Wear glove to protect your hands



- Beware of foot injury by cutting attachment



- Beware of thrown objects hit by cutting attachment.
Never use without properly mounted guard.



- Beware of blade thrust



- Keep at least 15m away from any other person.



- Sharp blade on the safety guard, do not touch the cut off knife.



- Extremely hot surface. Do not touch a hot muffler, gear box or cylinder, you may get burned. These parts get extremely hot from operation and remain hot for a short time after the unit is turned off.

Choke control



- Start position (choke closed).



- Run position (choke open).



Always **TURN OFF ENGINE** and make sure the cutting tool has stopped before cleaning, removing or adjusting blade.



WARNING! Never modify a trimmer or cutter in any way.

Improper use of the machine can cause **SERIOUS OR FATAL PERSONAL INJURY**.

WARNING  **DANGER**

The engine exhaust from this product contains chemicals to cause cancer, birth defects, of other reproductive harm.

Specifications, descriptions and illustrative material in this manual are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.

SAFETY RULES & PRECAUTIONS

Safety Rules

Proper safety precautions must be observed. Like all power equipment this unit must be handled carefully. **DO NOT EXPOSE YOURSELF OR OTHERS TO DANGER.** Follow these general rules. Do not permit others to use this machine unless they are thoroughly responsible and have read, and understand the machine manual and are trained in its operation.

- Secure the machine during transport to prevent loss of fuel, damage or injury.
- Always wear safety goggles for eye protection. Dress properly, do not wear loose clothing or jewelry that could become caught in moving parts of the unit. Safe, sturdy, nonskid footwear should always be worn. Long hair should be tied back. It is recommended that legs and feet be covered to protect from flying debris during operation.
- Inspect the entire machine for loose parts (nuts, bolts, screws, etc.) and any damage. Repair or replace as necessary before using the machine.
- **DO NOT USE** any attachment with this power head other than the ones recommended by our company. Serious injury to the operator or bystanders could result as well as damage to the machine.
- Keep the handles free from oil and fuel.
- Always use proper handles when cutting.
- Do not smoke while mixing fuel or filling tank.
- Do not mix fuel in an enclosed room or near open flames. Assure adequate ventilation.
- Always mix and store the fuel in a properly marked container that is approved by local codes and ordinances for such usage.
- Never remove the fuel tank cap while the engine is running.
- Never start or run the engine inside a closed room or building. Fumes from the exhaust contain dangerous carbon monoxide.
- Never attempt to make engine adjustments while the unit is running and strapped to the operator. Always make engine adjustments with the unit resting on a flat, clear surface.
- Do not use the unit if it is damaged or poorly adjusted. Never remove the machine's

guard. Serious injury to the operator or bystanders could result as well as damage to the machine.

- Inspect the area to be cut and remove all debris that could become entangled in the nylon cutting head. Also remove any objects that the unit may throw during cutting.
- Keep children away. Onlookers should be kept at a safe distance from the work area, at least 15 METER(50 FEET)
- Never leave the machine unattended.
- Do not use this unit for any job other than those for which it is intended as described in this manual.
- Do not overreach. Keep proper footing and balance at all times. Do not run the unit while standing on a ladder or on any other unstable footing location.
- Keep hands and feet clear of the nylon cutting head while unit is in use.
- Do not use this type of machine for sweeping away debris.
- Do not use the unit when you are tired, ill or under the influence of medication drugs or alcohol.
- Use nylon cutting head which is free of damage. If a stone or any other obstacle is hit, stop the engine and check the nylon cutting head. A broken or unbalanced nylon cutting head must never be used.
- Follow Instruction For Changing Accessories
- Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, furnaces, etc. Store in a locked, well ventilated area only.
- Ensure safe and proper performance of your product. These parts are available from your dealer. The use of any other accessories or attachments may cause a potential hazard or injury to the user, damage to the machine and void this warranty.
- Clean the machine completely, especially, the fuel tank, its surroundings, and the air cleaner.
- When refueling, be sure to stop the engine and confirm that it is cooled down. Never refuel when the engine is running or hot. When gasoline spills, be sure to wipe it up completely dispose of those materials before starting the engine.
- Stay clear of other workers or bystanders by at least 15 meters/50 feet.
- When ever approaching an operator of the machine, carefully call his attention and confirm that the operator stop the engine. Be careful not to startle or distract the operator which can cause an unsafe situation.
- Never touch the nylon cutting head when ever the engine is running. If it is necessary to adjust the protector or nylon cutting head, be sure to stop the engine and confirm that the nylon cutting head has stopped running.
- The engine should be turned off when the machine is moved between work areas.
- Be careful not to hit the nylon cutting head against stones, or the ground.
- Unreasonable rough operation will shorten the life of the machine as well as create an unsafe environment for yourself and those around you.
- Pay attention to loosening and overheating of parts. If there is any abnormality of the machine, stop operation immediately and check the machine carefully. If necessary, have the machine serviced by a authorized dealer. Never continue to operate a machine which may be malfunctioning.

- In start-up or during operation of the engine, never touch hot parts such as the muffler, the high voltage wire or the spark plug.
- After the engine has stopped, the muffler is still hot. Never place the machine in any places where there are flammable materials (dry grass, etc.), combustible gasses or combustible liquids.
- Pay special attention to operation in the rain or just after the rain as the ground may be slippery.
- If you slip or fall to the ground or into a hole, release the throttle lever immediately.
- Be careful not to drop the machine or hit it against obstacles.
- Before proceeding to adjust or repair the machine, be sure to stop the engine and detach the spark plug.
- When the machine is placed in storage for a long time, drain fuel from the fuel tank and carburetor, clean the parts, move the machine to a safe place and confirm that the engine is cooled down.
- Make periodic inspections to assure safe and efficient operation. For a thorough inspection of your machine, please contact a dealer.
- Keep the machine away from fire or sparks.
- It is believed that a condition called Raynaud's phenomenon, which affects the fingers of certain individuals may be brought about by exposure to vibration and cold. loss of color and numbness in the fingers. The following precautions are strongly recommended because the minimum exposure which might trigger the ailment is unknown.
- Keep your body warm, especially the head, neck, feet, ankles, hands and wrists.
- Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks and also by not smoking.
- Limit the hours of operation. Try to fill each day with jobs where operating the brush cutter or other hand-held power equipment is not required.
- If you experience discomfort, redness and swelling of the fingers followed by whitening and loss of feeling, consult your physician before further exposing yourself to cold and vibration.
- Always wear ear protection, loud noise for long time can make hearing debase even lost hearing.
- Total face and head protection must be worn to prevent damage from plummet or branch.
- Wear no-slip heavy duty work gloves to improve your grip on the brush cutter handle. Gloves also reduce the transmission of machine vibration to your hands.
- **WARNING:** The cutter area is still dangerous while the machine is going to a stop.

• **BLADE THRUST**

Take great care using the blade with the device. Thrust is a reaction that occurs when the blade hits objects that it can not cut. This can make the blade stop and "push away" the tool from the object that was unable to be cut. This reaction can be intense enough to lose control about the object, this process can occur without a warning, as soon as the blade hits an obstacle and stands still. It will occur in areas, where you cannot see exactly what you are cutting. This is why you always should cut from right to left to

minimize the reactions.

When transport, this unit must be handled carefully. Do not expose yourself or others to danger.

- Envelop the blade before storage. Keep children away from it.
 - Never remove the machine's guard.
 - Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, furnaces, etc. Store in a locked, well ventilated area only.
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- Never place the machine in any places where there are flammable materials (dry grass, etc.), combustible gasses or combustible liquids.
 - When the machine is placed in storage for a long time, drain fuel from the fuel tank and carburetor, clean the parts, move the machine to a safe place and confirm that the engine is cooled down.
 - **WARNING:** emission of exhaust gases
 - **WARNING:** national regulation can restrict the use of the machine.

Kickback and Related Warnings

- Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

- For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

- Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

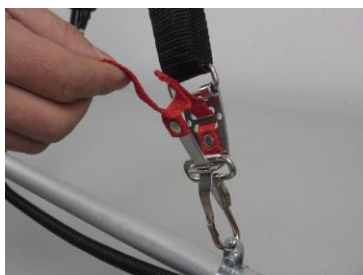
a) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.

b) **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.

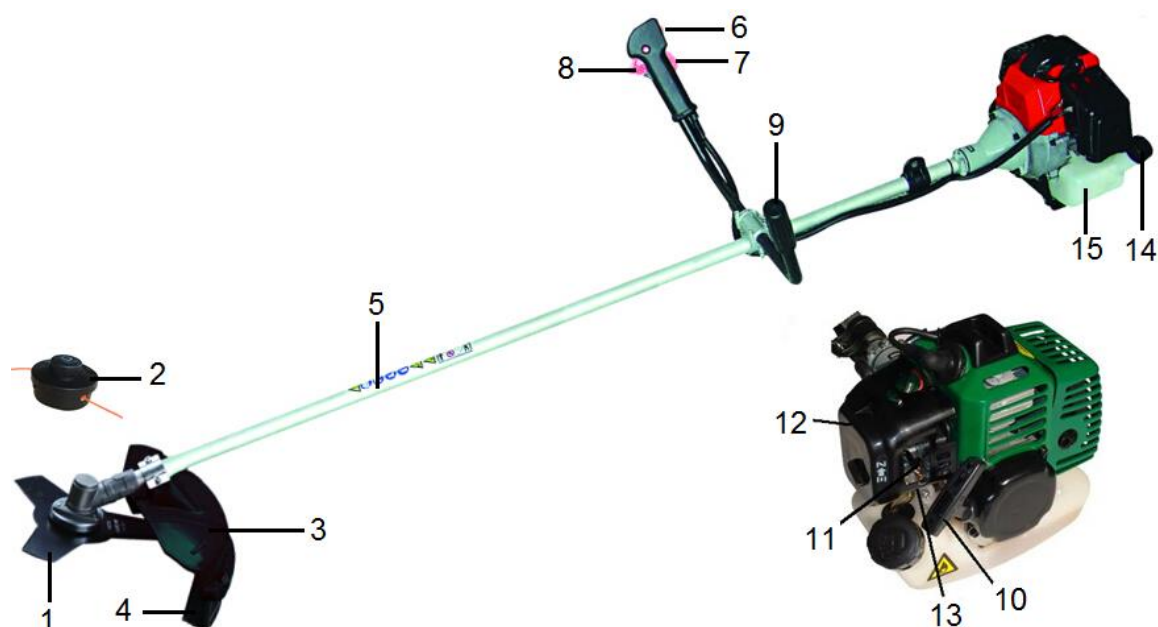
c) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

• **OPERATION OF QUICK RELEASE MECHANISM**

Pull the strip to release the machine from you in the case of emergency.



DESCRIPTION



SAFETY MANUAL included with unit. Read before operating and keep for future reference to learn proper, safe operating techniques.

1. **BLADE** 3-tooth blade for grass, weed or brush cutting applications. Harness and metal shield are required for blade operation.
2. **NYLON CUTTER HEAD** Contains replaceable nylon trimming line that advances when the trimmer head is tapped against the ground while the head is turning at normal operating speed.
3. **DEBRIS SHIELD** Mounted just above the cutting attachment. Helps protect operator by deflecting debris produced during the trimming operation. Do not operate unit without shield.
4. **CUT-OFF KNIFE** Trims nylon filament to the correct length-7", head to end of line-when nylon trimming head is bumped on the ground during operation, line advance. If trimmer is operated without a cut-off knife the line becomes too long the engine, this will overheat or damage the engine.
5. **DRIVE SHAFT ASSEMBLY** Contains a specially designed liner flexible drive shaft.
6. **IGNITION SWITCH** "slide switch" mounted on top of the Throttle Trigger Housing. Move switch FORWARD to Run, BACK TO STOP.
7. **SAFETY LEVER** Before acceleration, compress it please.

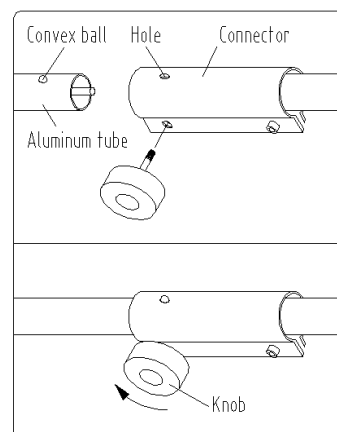
8. **THROTTLE TRIGGER** Spring loaded to return to idle when released. When accelerating, press trigger gradually for best operating technique. Do not hold trigger while starting.

9. **HANDLE** this handle can be adjusted at you convenience for comfort.
10. **STARTER HANDLE** pull handle until engine starts, then return handle slowly. **DO NOT** let handle snap back or damage to starter will occur.
11. **CHOKER** the choke control is located on the top of the filter cover.
12. **AIR CLEANER COVER** Contains replaceable felt element.
13. **PURGE BULB** Pushing purge bulb (7 to 10 times before starting), will remove all air and stale fuel from fuel system and bring fresh fuel to the carburetor.
14. **FUEL TANK LID.**
15. **FUEL TANK** Contains fuel and fuel filter.

ASSEMBLY INSTRUCTIONS

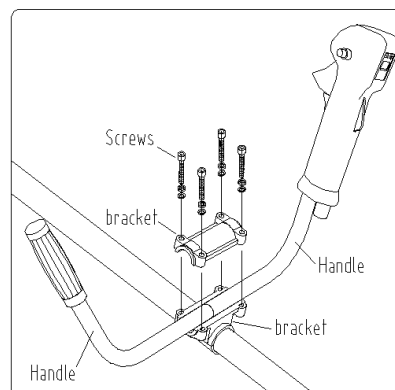
INSTALLING THE LOWER SHAFT

Pack the aluminum tube into the connector inside, make the convex ball aim at the hole on connector
Then turning the knob clockwise until it is tight



INSTALLING HANDLE

Install handle in bracket. Position handle in a comfortable operating position and tighten two bolts.



INSTALLING PLASTIC SHIELD

(For Nylon Line Operation)

Install the metal shield to the gear box housing. using three screws and install the plastic shield to the metal shield.

using three screws

INSTALLING NYLON LINE CUTTER HEAD

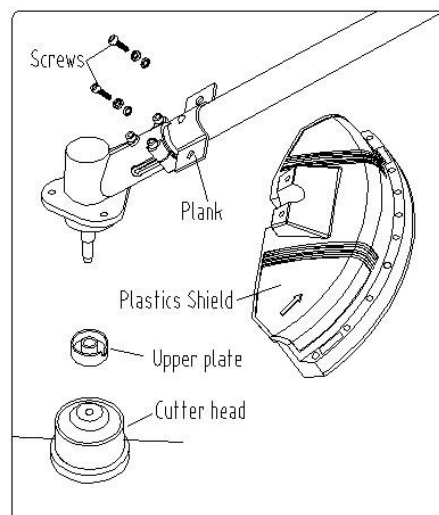
Fit the lining to the gear box housing.

Align hole in adapter plate with

Hole in shaft and install locking tool.

Thread cutter head onto shaft (turning it counters clockwise) until it is tight.

Remove locking tool.

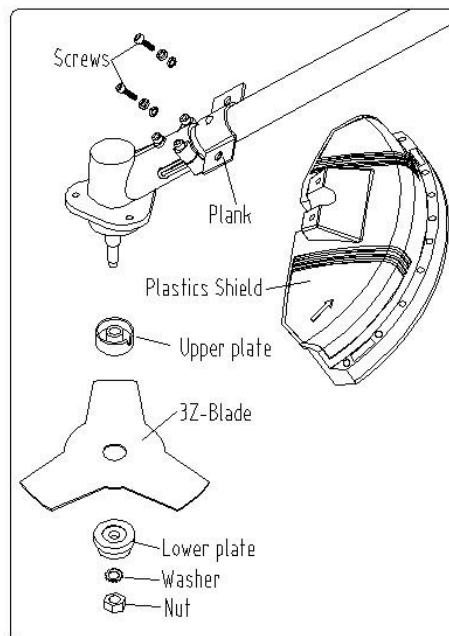


INSTALLING BLADE

Secure metal blade between upper and lower plate with nut.

WARNING  **CAUTION**
EXCESSIVE VIBRATION.
STOP ENGINE IMMEDIATELY

Excessive vibration of blade means that it is not properly installed-stop engine immediately and check blade. Blade not properly installed will cause injury.



RULES FOR SAFE OPERATION

WARNING DANGER

All model's trimmers and brush cutters can throw small stone, metal or small objects as well as the material being cut. Read these "Rules for Safe Operation" with care.

Follow the instructions in your operator's manual.

Read the operator's manual carefully. Be thoroughly familiar with the controls and proper use of the unit. Know how to stop the unit and shut off the engine. Know how to unhook a harnessed unit quickly.

Never allow anyone unit without proper instruction. Be sure the operator wears the foot, leg, eye, face and hearing or thrown objects. Keep the area clear of bystanders, children and pets. Never allow children to operate or play with the unit.

Do not allow anyone to enter the operating DANGER ZONE with you. The danger zone is an area 15 meters in radius (about 16 paces) or 50 feet.

Insist that persons in the RISK ZONE beyond the danger zone wear eye protection from thrown objects. If the unit must be used where there are unprotected people, operate at a low throttle speed to reduce the risk of thrown objects.

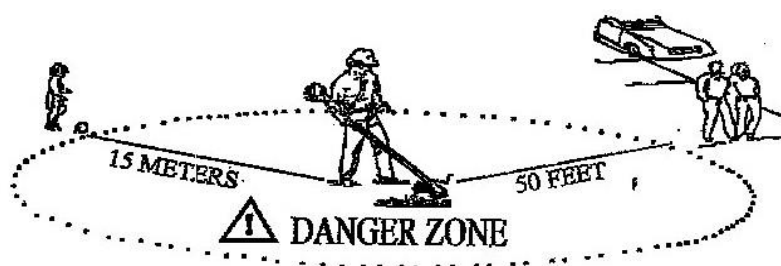
Move the stop switch to "o" position when the engine idles, insure it reliable before cutting. Only may continue to operate the unit when stop switch is in good condition.

Routines for checking that the cutting attachment stops turning when the engine idles.

WARNING DANGER

In addition to head, eye, face and ear protector's shoes to protect your feet improve your footing on slippery surfaces. Do not wear ties, jewelry, or loose, dangling clothing which could be caught in the unit.

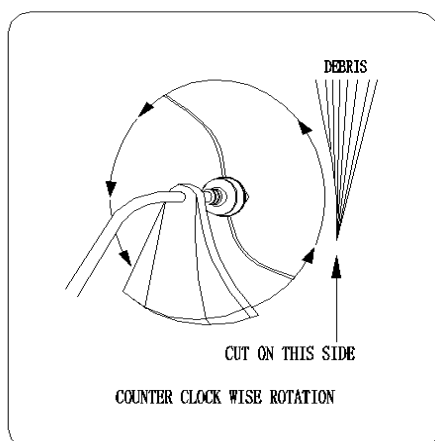
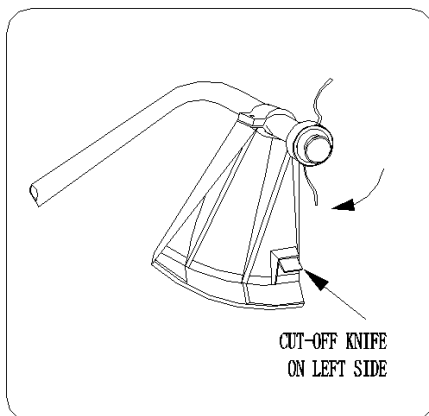
Do not wear open-toed footwear, or go bare-foot or bare legged. In certain situations, you must wear total face and head protection.



DANGER ZONE

NO PERSON EXCEPT OPERATOR ALLOWED 15 METERS RADIUS DANGER ZONE. EYE, EAR, FACE, FOOT, LEG AND BODY PROTECTION MUST BE WORN BY OPERATOR. PERSONS IN ZONE OR RISK BEYOND DANGER ZONE SHOULD WEAR EYE PROTECTION AGAINST THROWN OBJECTS. RISK DIMINISHES WITH DISTANCE FROM DANGER ZONE.

CUTTING WITH A NYLON HEAD



WARNING DANGER

The proper debris shield must be in place on the unit when nylon cutting line is used, The cutting line can flap around if too much line is exposed. Always use the plastic debris shield with cut-off knife when using nylon cutting heads.

For nearly all cutting, it is good to tilt the line head so that contact is made on the part of the line circle where the line is moving A W A Y from you and the debris shield. (See appropriate) This results in the debris being thrown A W A Y from you.

WARNING DANGER

Tilting the head to the wrong side will shoot the debris TOWARDS you. If the line head is held flat to the ground so that cutting occurs on the whole line circle, debris will be THROWN at you, drag will slow the engine down, and you will use up a lot of line.

WARNING DANGER

Use only quality nylon monofilament line of the diameter 2.5mm, Never use wire or wire-reinforced line in place of nylon trimmer line. Load your nylon line cutting head only with nylon trimmer line of the proper diameter.

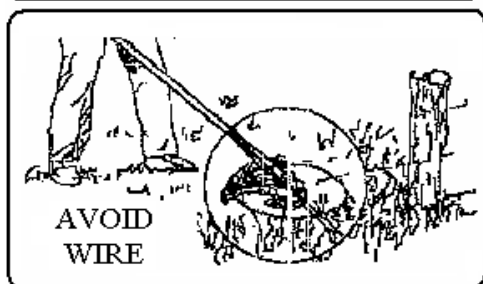
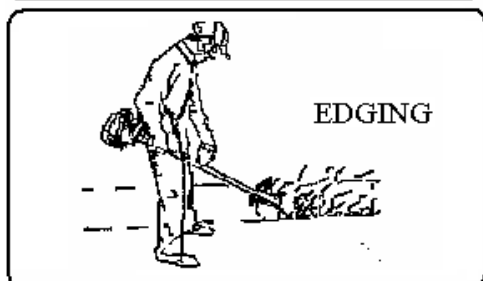
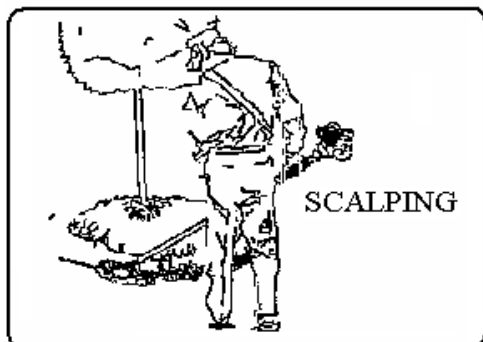
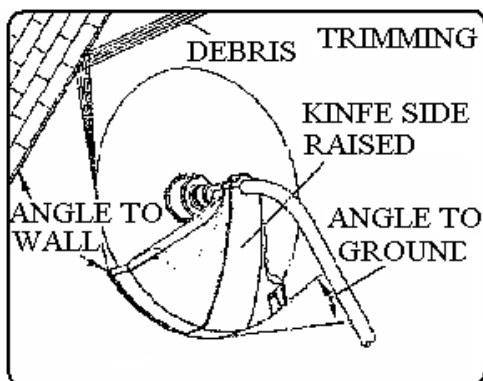
WARNING DANGER

Use extreme caution when operating over bare spots and gravel, because the line can throw small rock particles at high speeds. Debris shields on the unit cannot stop objects which bounce or ricochet off hard surfaces.

CUTTING WITH A NYLON HEAD

TRIMMING:

This is feeding the trimmer carefully into the material you wish to cut. Tilt the head slowly to direct debris away from you. If cutting up to a barrier such as fence, wall or tree, approach from an angle where any debris ricocheting off the barrier will fly away from you. Move the line head slowly until the grass is cut right up the barrier, but do not jam (overfeed) the line into the barrier. If trimming up to a wire mesh or chain linked fence be careful to feed only up to wire. If you go too far the line will snap off around the wire. Trimming can be done to cut through weed stems one at a time. Place the trimmer line head near the bottom of the weed-never high up which could cause the weed to chatter and catch the line. Rather than cut the weed right through, just use the very end of the line to wear through the stem slowly.



WARNING DANGER

Do not use a steel blade for edging or scalping.

SCALPING AND EDGING:

Both of these are done with the line head tilted at a steep angle. Scalping is removing top growth leaving the earth bare.

Edging is trimming the grass back where it has spread over a sidewalk or drive way. During both edging and scalping, hold the unit at a steep angle and in a position where the debris, and any dislodging dirt and stones, will not come back towards you even if it ricochets off the hard surface. Although the picture shows how to edge and scalp every operator must find for himself the angles which suits his body size and cutting situation.

WARNING DANGER

Do not trim in any area where there are strands of fencing wire. Wear protective safety protecting, Do not cut where you cannot see what the cutting device is cutting.

CUTTING WITH A BLADE


CUTTING WITH A BLADE

3-tooth metal blade is provided with the machine

The metal blade is used for cutting brush and weeds up to 3/4" in diameter.

Use of saw blade with this machine is prohibited.

WARNING  **DANGER**
**DO NOT USE A BRUSH CUTTER
FOR CUTTING TREES.**

WARNING  **DANGER**
Use the shoulder harness at all times adjust both harness and harness clamp on the unit so that the unit hangs a few inches above ground level. The cutting head and the metal debris shield should be level in all directions. Harness the unit on the right side of your body.

WARNING  **DANGER**

Do not cut with dull, cracked or damaged metal blade.
Before cutting growth, inspect for obstructions such as boulders, metal stakes or strands of wire from broken fences. If an obstruction can not be removed, mark its location so that you can avoid it with the blade. Rocks and metal will dull or damage a blade. Wire can catch on the blade head and flap around or be thrown into the air.

CUTTING WITH A BLADE

SCYTHING WEEDS. This is cutting by swinging the blade in a level arc. It can quickly clear areas of field grass and weeds. Scything should not be used to cut large, tough weeds or woody growths.

NOTE
Do not use a brush blade to cut trees which exceed a diameter of 1/2 to 3/4 inches.

Scything can be done in both directions, or just in one way which results in the debris

being thrown away from you.

That is using the side of the blade that it is rotating away from you. Tilt down the blade slightly on this same side. You will be hit by some debris if you scythe in both directions.

Cut only with the side of the blade that the debris is moving away from you.

If kickback occurs, the blade may be dull, or the material so thick and hard that you should use another tool instead of this machine.

Do not force the blade to cut. Do not change the angle of cut after into the wood. Avoid using any pressure or leverage which could cause the blade to bind or crack.

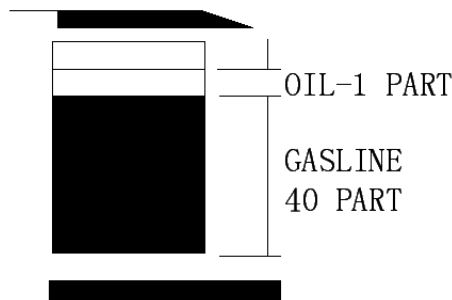
FUEL & OIL MIXTURE



- Never fill the fuel tank to the very top.
- Never add fuel to the tank in a closed non-ventilated area.
- Do not add fuel to this unit close to an open fire or sparks.
- Be sure to wipe off spilled fuel before attempting to start engine.
- Do not attempt to refuel a hot engine.

Fuel used for this model is a mixture of unleaded gasoline and approved engine lubricant. When mixing gasoline with two-cycle engine oil, use only gasoline which contains NO ETHANOL or METHANOL (Types of Alcohol) Use Branded 89 octane or higher

Unleaded gasoline is known to be of good quality. This will help to avoid possible damage to engine fuel lines and other engine parts.



MIXTURE RATIO IS 40:1

GASOLINE-40PART OIL-1 PART

Fuel mixture at the rate other than **40:1** may cause damage to the engine, Ensure mixture ratio is correct.

FUEL

The engine uses two-stroke fuel, a mixture of gasoline and 2-stroke lubricant 40:1

IMPORTANT Two-stroke fuel may separate. Shake fuel container thoroughly before each use. Stored fuel ages. Do not mix more fuel than you expect to use within a month.

GASOLINE

Use branded 89 octane or higher unleaded gasoline known to be of good quality.

FUEL AND OIL MIXTURE

Inspect fuel tank making sure that it is clean and fill with fresh fuel. Use a mixture of 40:1

STORING FUEL

Store fuel only in a clean, safe and approved container. Check and follow local ordinances on type and location of storage container.

PREPARING FOR OPERATIONS

WHEN MIXING GASOLINE WITH TWO CYCLE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL (TYPES OF ALCOHOL). THIS WILL HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS.

DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE ENGINE FUEL TANK.

IMPORTANT: Failure to follow proper fuel mix instructions may cause damage to the engine.

When preparing fuel mixture, mix only the amount needed for the job you are to do. Do not use fuel that has been stored longer than two months. Fuel mixture stored longer than this will cause hard starting and poor performance. If fuel mix has been stored longer than this time. It should be removed and filled with fresh mixture.

WARNING DANGER

1. Never fill the fuel tank to the very top.
2. Never add fuel to the tank in a closed non-ventilated area.
3. Do not add fuel to this unit close to an open fire or sparks.
4. Be sure to wipe off spilled fuel before attempting to start engine
5. Do not attempt to refuel a hot engine.

CHECK POINTS BEFORE OPERATION

1. Check for loose bolts. Nuts and fittings.
2. Check the air cleaner for dirt. Clean the air filter of all dirt. Etc. before operation.
3. Check to be sure that protector is securely in place.
4. Check to be sure that is not leak.

WARNING DANGER

The engine exhaust from this product contains chemicals known to cause cancer, birth defects, or other reproductive harm.

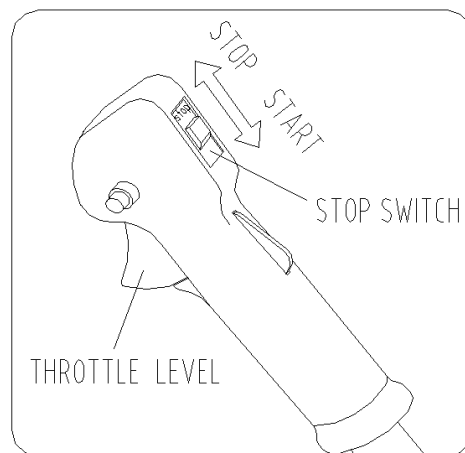
OPERATIONS

ENGINE STARTING AND STOPPING PROCEDURES

STARTING COLD ENGINE

Move the stop switch to “START” position.

1. Give a gentle push on the primer pump repeatedly (7-10times) until fuel comes into the primer pump.
2. Cold Starts: Pull lever up to close choke.
3. Pull starter handle until engine flash. fires.
4. Push choke lever inwards (excessive cranking with choke lever will cause flooding engine making it difficult to start).
5. Pull starter handle until engine starts.
6. Allow engine to warm up for a few minutes before using.



STARTING WARM ENGINE

- If fuel tank was not run dry, pull starter. one to three times and should start.

DO NOT USE CHOKE

- If fuel tank was run dry, after refilling repeat steps 3 thru 7 in. STARTING COLD ENGINE.

STOPPING THE ENGINE

- Move switch to STOP position

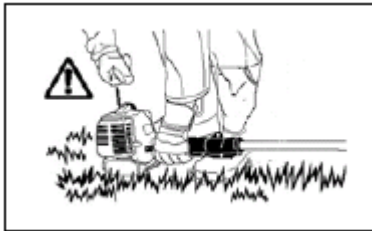
OPERATIONS

IMPORTANT!

⚠ CAUTION

Place the unit on a flat, firm place.

Keep the cutting head clear of everything around it.



⚠ WARNING

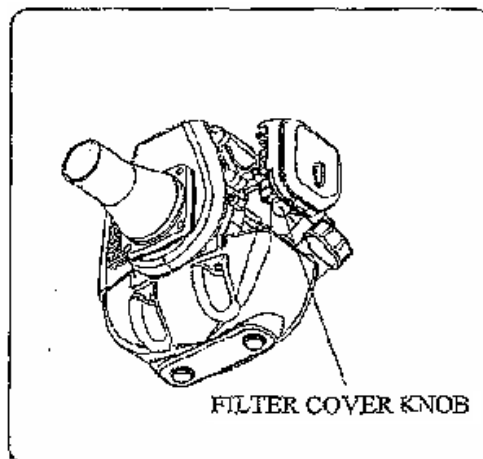
The product is equipped with a centrifugal clutch mechanism, so the cutting attachment begins to rotate as soon as the engine is started by putting the throttle trigger into the start position. When starting the engine, place the product onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the cutting part nor the throttle trigger come into contact with any obstacle when the engine starts.

Please ensure that the cutting attachment stops turning when engine idles, if it is running while engine idles, please have it repaired by dealer or authorized technician.

MAINTENANCE & CARE

AIR FILTER

- Accumulated dust in the air filter will reduce engine efficiency. Increase fuel consumption and allow abrasive particles to pass into the engine. Remove the air filter as often as necessary to maintain in a clean condition.
- Light surface dust can readily be removed by tapping the filter. Heavy deposits should be washed out in suitable solvent.
- Remove filter cover by loosening air filter cover knob.



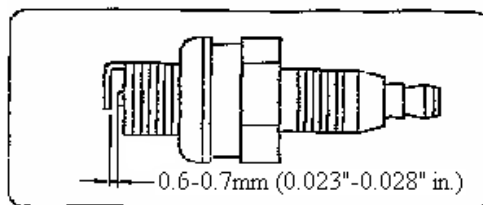
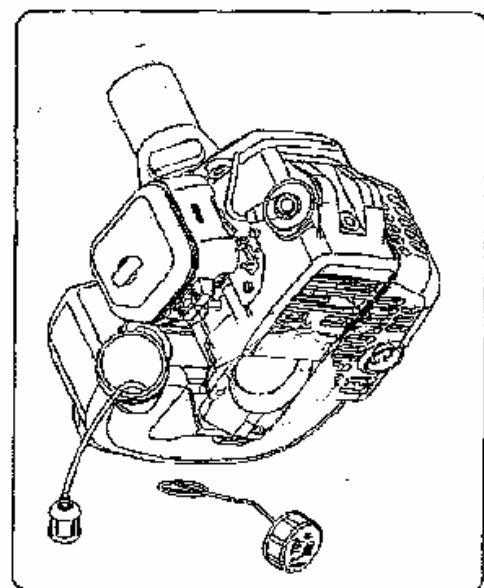
ADJUSTING CARBURETOR

NOTE

Do not adjust carburetor unless necessary. If you have trouble with the Carburetor, see your dealer. Improper adjustment may cause engine damage And void warranty.

FUEL FILTER

- Fuel tank is fitted with a filter. Filter is situated at the free end of fuel pipe and can be picked out through fuel port with a piece of hooked wire or The like.
- Check the fuel filter periodically. Do not allow dust to enter into fuel tank. Clogged filter will cause difficulty in starting engine or abnormalities in starting engine or abnormalities in engine performance.
- When filter is dirty, replace the filter.
- When the inside of the fuel tank is dirty, it can be cleaned by rinsing the tank out with gasoline.



CHECK SPARK PLUG

- Do not attempt to remove the plug from a hot engine in order to avoid possible damage to the threads.

TROUBLE SHOOTING

- Clean or replace the plug if fouled with heavy oily deposits.
- Replace the plug if the center electrode is worn rounded at the end.
- Spark gap 0.6-0.7mm (.023"-.028")
- Fastening torque = 145-155kg.cm (125-135in.lb)

WARNING: Always cover the metal blade with the transportation guard while transportation and storage.

TRANSPORT, HANDLING

- The engine should be turned off when the unit is moved between work areas.
- After the engine has stopped, the muffler is still hot. Never touch hot parts such as the muffler.
- Confirm that the fuel is not leaked from tank.

EXTENDED STORAGE

- Inspect, clean and repair unit if necessary.
- Remove all fuel from tank.
- Start engine-This will consume all fuel in fuel line and carburetor.
- Remove spark plug and pour one tea spoon of clean motor oil into spark plug hole of cylinder-replace spark plug.
- Store in clean, dry, dust free area.

FAILURES such as difficulty in starting engine, irregularity in functions and abnormality in performance can normally be prevented if careful attention is paid to all operating instructions and maintenance procedures.

Should the engine not function properly, check the following;

- That the fuel system is in good condition and fuel is flowing to the engine.
- The ignition system is in good condition and the spark plug, sparks correctly;
- Compression of the engine is adequate.

FAILURE TO START

- Dispose of fuel in tank.
- Insure that fuel is fresh and clean.
- Check fuel filter to make sure it is clean. (Replace filter if necessary).
- Make sure air filter elements are clean.
- Install new, properly gapped spark plug.
- When there is serious trouble with the unit, do not try to repair it yourself but have your distributor or dealer do it for you.

TROUBLESHOOTING GUIDE

1. FAILURE TO START

symptom		probable cause		remedy	
cylinder compress pressure normal	spark plug spark normal	fuel system abnormality		these is no fuel in tank fuel filter obstruct	Add fuel in tank Clean fuel filter
		fuel system normal	fuel	fuel is too dirty there is water in fuel there is too much mixture ratio is improper	instead fuel instead fuel tear down spark plug and dry it mixture peroration
	fuel system normal	high voltage wire spark normal	spark plug	spark plug fouled with oily deposits Spark plug insulation damage Spark gap is too large or small	clean the oil deposits replace spark plug adjust spark gap 0.6-0.7mm
		high voltage spark abnormality		high voltage wire breach or break off coil looseness	replace or tighten tighten
fuel system normal	Ignition System	compress press is shortage	piston ring attrite piston ring is broken piston ring cementation spark plug looseness conjoint surface of the cylinder and crank cast leak	replace a new replace eliminate tighten eliminate	
	normal	Compress normal	High voltage wire and spark Plug contact badness Stop switch failure or short circuit	tighten the spark plug cap repair or replace	

TROUBLESHOOTING GUIDE

2. LOW OUTPUT

symptom	probable cause	remedy
flameout when speedup the smoke is thin, carburetor spout backward	fuel filter obstruct, fall short of fuel muffler fouled with oily deposits	clean fuel filter、clean fuel road、 adjust carburetor clean the oily deposits
compress press is shortage	piston、piston ring、 cylinder attrite、	replace piston、piston ring
engine leak	Conjoint surface of the Cylinder and crank cast leak	repair
the end of two crank shaft leak	the seal is bad	replace seal
	engine overheats burning room fouled with oily deposits	avoid use it for long time、 high speed and heavy load clean the oily deposits

3. ENGINE RUNNING UNSTABLE

symptom	probable cause	remedy
there are metal knock sound	piston、piston ring、 cylinder attrite、 piston pin、piston attrite bearing of crank shaft attrite	replace piston、piston ring replace piston pin、piston replace bearing
there are metal knock sound	engine overheats burning room fouled with oily deposits gasoline branded is unfit	avoid use it for long time、 high speed and heavy load clean the oily deposits replace require branded octane
engine ignition break off	there is water in fuel spark gap is wrong coil gap is wrong	instead fuel adjust spark gap 0.6-0.7mm adjust coil gap 0.3-0.4mm

4. THE ENGINE SUDDENLY STOPPED

probable cause	remedy
fuel is use up spark plug fouled with oily deposits and short circuit high voltage wire fall off	add fuel clean the oily deposits connect

Guarantee terms

Please carefully retain the guarantee card completed by the seller, or the proof of purchase.

The company **Acquaer** guarantee for 12 months from the date of purchase This guarantee is in accordance with the relevant state of technology and the utilization purpose / area of application The consumer 's statutory rights are not affected by the following guarantee guidelines

Pre-conditions for the 12-month guarantee entitlement:

- Deployment of the device solely for private use.
- The guarantee is reduced to 6 months in the commercial sector or leasing business**
- Proper handling and observance of all information given in the operating manual, which forms part of our guarantee terms.
- Observance of the prescribed maintenance intervals
- No unauthorised alteration of the design.
- Installation of original GAMA GARDEN replacement parts/accessories.
- Presentation of the completed guarantee card and/or proof of purchase.

This guarantee does not extend to normal wear-and-tear on blades, blade mounting components or friction disks, V-belt/toothed belts, running wheels/tyres air filters spark plugs and spark plug connectors.

Any transport damage should be reported to the shipper, otherwise any compensation claims the shipper would be voided.



This symbol on the device or the packaging indicates that the product shall not be managed as household waste. Please dispose of it at the collecting place assigned for the collection of electrical and electronic devices. By proper management of superseded products you can help prevent the environment and human health from damage which would occur if you do not follow the proper way of waste disposal. The recycling of the materials helps in the preservation of the natural resources. For further information on the recycling of the product, please turn to the competent authorities, the local waste collecting service provider or the shop where this product was bought.

Information concerning the packaging materials

The used packaging materials must be thrown into the relevant waste collector.

In case of the need of any parts, questions or service instructions please contact:

- szerviz@gamagarden.eu
- +36 30 508-6563

Acquaer Ltd., 4900 Fehérgyarmat, Szatmári u. 11 certifies CE conformity of the above-mentioned product and that it complies with the technical data specified in the data plate and the “Operating instructions”.

You can get detailed information about the CE declarations at: www.gamagarden.eu