

Owner's/Operator's Manual

Completely read and understand this manual before using this product.

Foreword

This Owner's/Operator's Manual is designed to familiarize the operator with the various features and component parts of the equipment and to assist you with the assembly, operation and maintenance of your new Trimmer/Brushcutter.

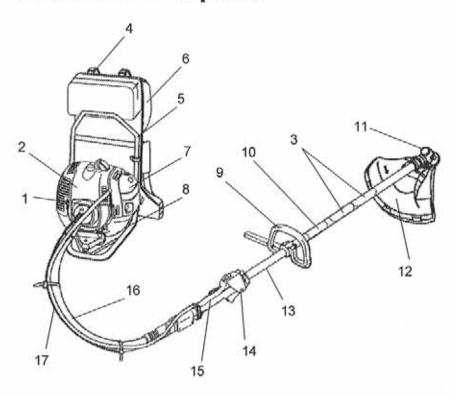
It is essential that any operator of this Trimmer/Brushcutter reads and understands the contents this manual before using the Trimmer/Brushcutter.

For additional assistance, contact any local authorized MARUYAMA dealer.

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Product Description



- 1. Clutch Drum Housing
- 2. Engine
- 3. Safety Decal
- 4. Knapsack belt
- 5. Frame
- 6. Pad
- 7. Air Filter
- 8. Fuel Tank
- 9. Loop Handle
- 10. Model Name
- 11. Gearcase
- 12. Cutting Attachment Guard
- 13. Shaft Assembly
- Throttle Trigger and Stop Switch
- 15. Shaft grip
- 16. Flexible Shaft
- Throttle Cable and Stop Switch Wires

Safety Decals













ON SHAFT (Part No. 221501)

ON SHAFT (Part No. 221502)



ON ENGINE (Part No. 267433)



ON ENGINE

N452

(Part No. 283375)

Safety Decals are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

Safety Instructions

The warning system in This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury, even death.

▲ DANGER , ▲ WARNING and ▲ CAUTION are signal words to identify the level of hazard.

▲ DANGER : signals an extreme hazard that will cause serious injury or death if the recommended precautions are not followed.

▲ WARNING: signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

CAUTION : signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed. Two other words are also used to highlight information. "Important" calls attention to special mechanical information and "Note" emphasizes general information worthy of special attention.

Operator safety

- Read and understand this Manual before using the Trimmer/Brushcutter. Be thoroughly familiar with the proper use of this Trimmer/Brushcutter.
- Always wear eye protection and hearing protection.
- Always wear heavy long pants, a long sleeved shirt, boots and gloves. Do not wear loose clothing, jewelry, short pants, sandals, or go barefoot. Secure hair so it is above shoulder length.
- Never operate this Trimmer/Brushcutter when you are tired, ill, or under the influence of alcohol, drugs or medication.
- Never start or run the engine inside a closed room or building. Breathing exhaust fumes can cause death
- 6. Keep the grips clean of oil, fuel and dirt.

Trimmer/Brushcutter safety

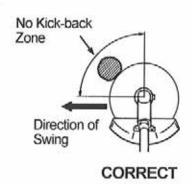
- 1.Shut off the engine and be certain the cutting attachment has completely stopped rotating before inverting the Trimmer/Brushcutter, performing maintenance on or working on the machine.
- Make sure the Trimmer/Brushcutter is assembled correctly and that the cutting attachment is correctly installed and securely fastened as instructed in the assembly section.
- 3.Inspect the Trimmer/Brushcutter before each use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and tightened securely. Follow the maintenance instructions beginning on page 18.
- Make sure the cutting attachment does not rotate at engine idle speed. Refer to Idle Speed Adjustment, page 13.
- Inspect the cutting attachment and replace any parts that are cracked, chipped or damaged before using the Trimmer/Brushcutter.
- Make sure the cutting attachment is installed and positioned correctly before using the Trimmer/Brushcutter.
- 7. Never use a cutting attachment or replacement parts that are not approved by MARUYAMA.
- Maintain the Trimmer/Brushcutter according to the recommended maintenance intervals and procedures in the Maintenance section beginning on page 18.
- If running problems or excessive vibration occur, stop immediately and inspect the unit for the cause. If the cause cannot be determined or is beyond your ability to correct, return the Trimmer/Brushcutter to your servicing MARUYAMA dealer for repair.

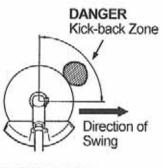
Fuel safety

- Gasoline is highly flammable and must be handled and stored carefully. Use a container approved for storing gasoline.
- 2. Mix and pour fuel outdoors and where there are no sparks or flames.
- 3. Do not smoke near fuel or Trimmer/Brushcutter, or while using the Trimmer/Brushcutter.
- 4. Do not overfill the fuel tank. Stop filling 10mm from the top of the tank.
- 5. Wipe up any spilled fuel before starting the engine.
- 6. Move the Trimmer/Brushcutter at least 3m away from the fueling location before starting the engine.
- 7. Do not remove the Trimmer/Brushcutter fuel tank cap immediately after stopping the engine.
- 8. Allow the engine to cool before refueling.
- 9. Drain the tank and run the engine dry before storing the unit.
- Store fuel and Trimmer/Brushcutter away from open flame, sparks and excessive heat. Make sure fuel vapors cannot reach sparks or open flames from water heaters, furnaces, electric motors, etc.

Trimmer/ Brushcutter Operating Safety

- THIS TRIMMER/BRUSHCUTTER CAN CAUSE SERIOUS INJURIES. Read the instructions carefully. Be familiar with all controls and the proper use of the Trimmer/ Brushcutter.
- Never allow children to operate the Trimmer/ Brushcutter. It is not a toy. Never allow adults to operate the unit without first reading this Operator's Manual.
- Avoid using the Trimmer/ Brushcutter near rocks, gravel, stones and similar material that would cause harmful missiles.
- Keep children, bystanders and animals outside a15m (50ft.) radius from the operator and Trimmer/ Brushcutter.
- 15m (50ft.) Minimum
- If you are approached while operating the Trimmer/ Brushcutter, stop the engine and cutting attachment rotation.
- Use the Trimmer/ Brushcutter only in daylight or good artificial light.
- Never operate the Trimmer/ Brushcutter without proper guards in place.
- Do not put hands or feet near or under any rotating parts. Keep clear at all times. Keep all parts of your body away from the rotating cutting attachment and hot surfaces such as the muffler
- 9. When cutting heavy brush or small trees, always swing the Brushcutter from right to left to prevent kick-back.





INCORRECT

- Keep a firm footing and balance. Do not overreach.
- Use the right tool for the job. Do not use the Trimmer/ Brushcutter for any job that is not recommended by MARUYAMA.

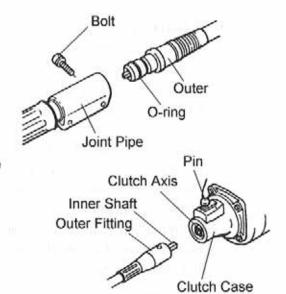
Assembly

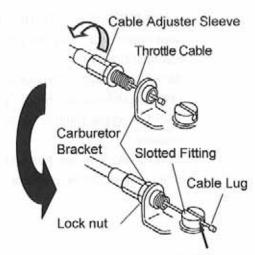
Installing Flexible Shaft

- Remove the bolt and insert the outer fitting(with o-ring) into the joint pipe, and tighten the bolt.
- Insert the outer fitting into the clutch case with pulling up the Pin. Be sure pin returns to original position by spring and outer fitting never comes off from clutch case.

Connecting Throttle Cable

- Insert the throttle cable through the carburettor bracket, then screw the cable adjuster sleeve into the carburettor bracket fully.
- Position the slotted fitting on the carburettor so the recessed hole for the cable lug is away from the cable adjuster sleeve.
- Rotate the carburettor throttle cam and slip the throttle cable through the slot in the slotted fitting, making sure the cable lug drops into the recessed hole.
- Operate the throttle trigger a few times to make sure that it works correctly.
- Plug the stop switch wires into the matching connectors from the engine. Note that wire polarity is not important.
- Lap and fix the stop switch wires and connectors with clamp.
- 7. Bind the throttle cable and the flexible shaft with two bands.

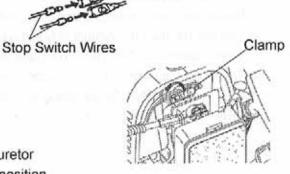


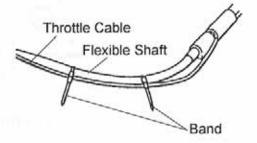


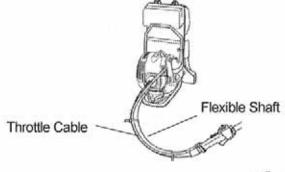
Recessed Hole

Cable Adjustment

- Throttle cable should be paralleled to flexible shaft.
 In case of twisting, they should be restored by parallel.
- Throttle cable should be adjusted under the bended flexible shaft as shown.
- Adjust the cable adjuster sleeve so the stop on the carburetor throttle cam just contacts the throttle stop and the cable position keep 1-2mm play between cable lug and slotted fittings when the throttle trigger is fully depressed.
- When the throttle cable is adjusted correctly, tighten the lock-nut.



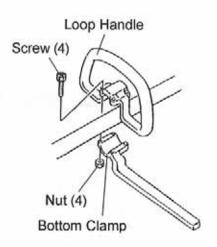






Loop Handle Installation

- Place the loop handle and the bottom clamp on the shaft approximately 23cm(9 inches) from the end of the stop switch/throttle trigger assembly.
- 2. Install the four screws and nuts. Tighten the screws evenly.
- Reposition the loop handle up or down the driveshaft to the most comfortable position, and tighten the screw and nuts.



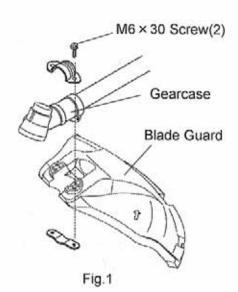
Installing Guard

MARNING

POTENTIAL HAZARD

- Foreign objects can be thrown by Trimmer/Brushcutter.

 WHAT CAN HAPPEN
- Contact with thrown objects can cause personal injury.
 HOW TO AVOID THE HAZARD
- Never operate the Trimmer/Brushcutter without the guard in place.



Blade Guard

Attach the blade guard to the gearcase with the two $M6 \times 30$ screws as shown on Fig.1.

Trimmer Head Guard

(Install the string cutoff blade and guard extension to the blade guard.)

- 1. Insert the square nut into guard extension as shown on Fig. 2.
- Attach the String Cutoff Blade to guard extension using M5×20 Screw, locking with square nut (on Fig.2) as shown on Fig.3.
- Enter the guide in the slot of Blade Guard on Fig. 4.
 Make sure place the three hooks into the position on the guard as shown on Fig. 5.

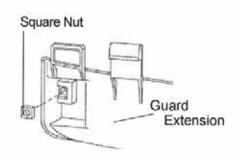
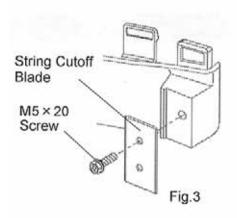
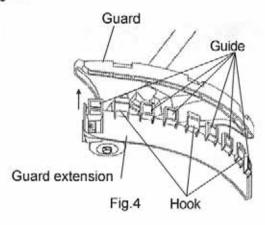
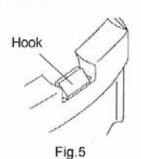


Fig.2







Installing Cutting Attachment

Trimmer Head

A WARNING

POTENTIAL HAZARD

 If the trimmer head is not adequately tightened, it can come loose from the Trimmer/Brushcutter during use.

WHAT CAN HAPPEN

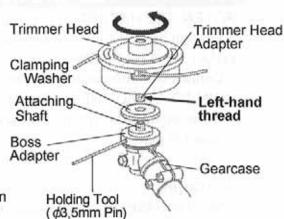
This may cause damage to property or personal injury.

HOW TO AVOID THE HAZARD

· Make sure the trimmer head is securely fastened to the attaching shaft in the gearcase.

IMPORTANT: Make sure the trimmer head is for LEFT-HAND ROTATION (counterclockwise) as viewed from the operator's position, and that the trimmer head adapter is a male, M8 left-hand thread.

- Align the hole in the boss adapter with the guide slot in the gearcase.
- Insert the φ3,5mm pin into the hole in the boss adapter and the guide slot in the gearcase to lock the attaching shaft.
- Thread the trimmer head adapter into the attaching shaft, then tighten the trimmer head by hand.



Brushcutter Blade

A WARNING

POTENTIAL HAZARD

 If the Brushcutter blade is not adequately tightened, it can come loose from the Brushcutter during use.

WHAT CAN HAPPEN

· This may cause damage to property or personal injury.

HOW TO AVOID THE HAZARD

· Make sure the Brushcutter blade is securely fastened to the attaching shaft in the gearcase.

 Remove the blade bolt, stabilizer and clamping washer from the attaching shaft out of the gearcase.

Note: The blade bolt has left-hand thread.

A WARNING

POTENTIAL HAZARD

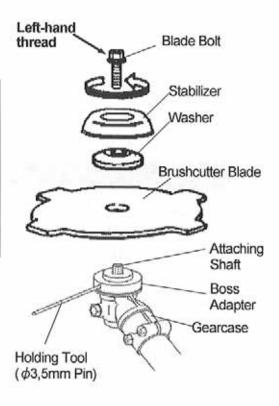
Brushcutter blade is sharp.

WHAT CAN HAPPEN

· Contact with sharp blade can cause personal injury.

HOW TO AVOID THE HAZARD

- · Wear gloves when you handle the blade.
- Install the brushcutter blade onto the boss adapter, then reinstall the clamping washer, stabilizer and blade bolt.
- Align the hole in the boss adapter with the guide slot in the gearcase.
- Insert the φ3,5mm pin into the hole in the boss adapter and the guide slot in the gearcase to lock the attaching shaft.
- 5. Tighten the blade bolt.
- Remove the \$\phi\$3,5mm pin from the boss adapter and gearcase.



Installing Blade Cover

A WARNING

POTENTIAL HAZARD

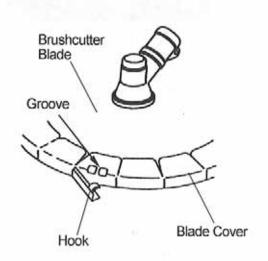
· Brushcutter blade is sharp.

WHAT CAN HAPPEN

- Contact with sharp blade can cause serious personal injury.
- An unprotected blade is subject to damage.

HOW TO AVOID THE HAZARD

- Keep the blade cover on the blade when the Brushcutter is not use. This will protect persons from injury from blade contact, and will protect the blade from damage.
- 1. Insert the tips of the blade into the grooves in the blade cover.
- Wind the cover around the blade, then snap the hook to secure the blade cover.



Before Operation

Oil and Fuel

- 1. Mix and pour fuel outdoors and where there are no sparks or flames.
- Always shut off the engine before refueling. Never remove the fuel tank cap while the engine is running or immediately after stopping the engine.

MARNING

POTENTIAL HAZARD

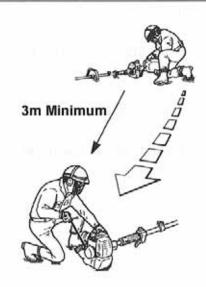
Gasoline contains gasses that can build up pressure inside a fuel tank.

WHAT CAN HAPPEN

· fuel can be sprayed on you when removing fuel tank cap.

HOW TO AVOID THE HAZARD

- Remove fuel tank cap slowly to avoid injury from fuel spray.
- Always open the fuel tank cap slowly to release any possible pressure inside the tank.
- Do not overfill the fuel tank. Stop filling 10mm from the top of the tank.
- 5. Tighten the fuel tank cap carefully but firmly after refilling.
- Wipe up any spilled fuel before starting the engine.
- Move the Trimmer/Brushcutter at least 3m away from the fueling location and fuel storage container before starting the engine.



A DANGER

POTENTIAL HAZARD

In certain conditions gasoline is extremely flammable and highly explosive.

WHAT CAN HAPPEN

· A fire or explosion from gasoline can burn you, others and cause property damage.

HOW TO AVOID THE HAZARD

- Use a funnel and fill the fuel tank outdoors, in an open area, when the engine is cold.
 Wipe up any gasoline that spills.
- Do not fill the fuel tank completely. Add gasoline to the fuel tank until the level is 10mm below the bottom of the filler neck. This empty space in the tank allows gasoline to expand.
- Never smoke when handling gasoline, and stay away from an open flame with gasoline in an approved container and keep it out of the reach of children.
- · Do not mix fuel for more than two month use.

Recommended Oil Type

Only use a two-cycle engine oil formulated for use in high-performance, air-cooled two-cycle engines.

IMPORTANT: Do not use two-cycle oil intended for water cooled outboard motors. This type of two-cycle engine oil does not have the additives for air-cooled two-cycle engines and can cause engine damage.

Do not use automotive motor oil. This type of oil does not have the proper additives for air-cooled two-cycle engines and can cause engine damage.

Recommended Fuel Type

Use clean, unleaded gasoline with an octane rating of 85 or higher. Use of unleaded gasoline results in fewer combustion chamber deposits and longer spark plug life. Use of premium grade fuel is not necessary or recommended.

IMPORTANT: Never use gasohol or alcohol blended fuels in this engine.

Mixing Gasoline and Oil

IMPORTANT: The engine used on this Trimmer/Brushcutter is of a two-cycle design. The internal moving parts of the engine, i.e., crankshaft bearings, piston pin bearings and piston to cylinder wall contact surfaces, require oil mixed with the gasoline for lubrication.

Failure to add oil to the gasoline or failure to mix oil with the gasoline at the appropriate ratio will cause major engine damage which will void your warranty.

Fuel Mixture

The fuel: oil ratio is 25 parts gasoline to 1 part oil or 25:1.

Fuel Mixture Chart 25:1

Gasoline	two-cycle oil
1 litre	40 ml
2 litre	80 ml
5 litre	200 ml

Mixing Instructions

IMPORTANT: Never mix gasoline and oil directly in the Trimmer/Brushcutter fuel tank.

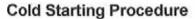
- 1. Always mix fuel and oil in a clean container approved for gasoline.
- Mark the container to identify it as fuel mix for the Trimmer/Brushcutter.
- Use regular unleaded gasoline and fill the container with half the required amount of gasoline.
- 4. Pour the correct amount of oil into the container then add the remaining amount of gasoline.
- Close the container tightly and shake it momentarily to evenly mix the oil and the gasoline before filling the tank on the Trimmer/Brushcutter.
- When refilling the Trimmer/Brushcutter fuel tank, clean around the fuel tank cap to stop dirt and debris from entering the tank during cap removal.
- 7. Always shake the premix fuel container momentarily before filling the fuel tank.

- 8. Always use a spout or funnel when fueling to reduce fuel spillage.
- 9. Fill the tank only to within 10mm from the top of the tank. Avoid filling to the top of the tank filler neck.

Starting and Stopping

Before Starting the Engine

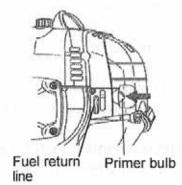
- Fill the fuel tank as instructed in the Before Operation section of this manual.
- 2. Rest the Trimmer/Brushcutter on the ground.
- Make sure the cutting attachment is clear of any broken glass, nails, wire, rocks or other debris.
- Keep all bystanders, children and animals away from the working area.

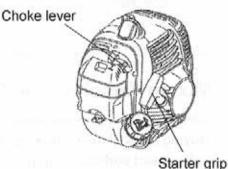


The carburetor on this engine is equipped with a fuel primer and a choke system.

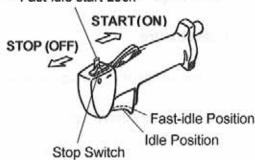
To start a "cold" engine properly, perform the following procedure:

- Pump the primer bulb until fuel can be seen flowing through the fuel return line to the fuel tank. Flowing fuel should be almost clear, not foamy or full of bubbles.
- Turn the choke lever to the Close position.
- With the stop switch "ON", and the throttle trigger positioned at Fast-idle position, pull the starter grip.





Fast-idle start Lock



A CAUTION

Do not pull the Starter rope all the way out.
 It may damage the machine.

A WARNING

Do not disassemble the Starter.
 Please ask for an authorized MARUYAMA service dealer.

After the engine is started, turn the choke lever to the Open position. Then squeeze and release the throttle trigger to allow it to return to the idle position.

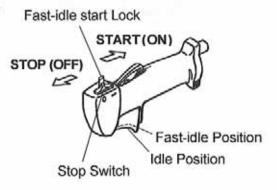
If the engine stops running before you turn the choke lever to the open position:

Go ahead and open the choke, pull the starter grip with the throttle trigger positioned at Fast-idle position.

Hot Restart

To start the engine that is already warmed up (hot restart).

- Turn the choke lever to the open position, and set the stop switch to the "ON" position.
- Leave the throttle trigger in the idle position and pull the starter grip.
- If the engine fails to start after three to four pulls, follow the instructions in the Cold Starting Procedure section above.
 If the engine fails to start after you follow the above procedures, contact an authorized MARUYAMA dealer.



To Stop the Engine

- 1. Release the throttle trigger.
- 2. Slide the stop switch to "STOP" position.

Idle Speed Adjustment

This Trimmer/Brushcutter is equipped with non-adjustable fuel mixture carburetor. The idle speed is the only adjustment for the operator.

A WARNING

POTENTIAL HAZARD

- Engine must be running to make carburetor adjustments.
- · When engine is running, attached tool and other parts are moving.

WHAT CAN HAPPEN

 Contact with moving attached tool or other moving parts could cause serious personal injury or death.

HOW TO AVOID THE HAZARD

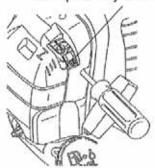
- Keep hands, feet and clothing away from attached tool and other moving parts.
- Keep all bystanders and pets away from unit while making carburetor adjustments.

The cutting attachment may be moving during idle speed adjustment. Wear the recommended personal protective equipment and observe all safety instructions. Keep hands and body away from the attached tool.

When the throttle trigger is released, the engine should return to an idle speed. The correct speed is 2400 - 2800 min⁻¹ (or just below the clutch engagement speed).

The attached tool must not move and the engine should not stall (stop running) at engine idle speed.

Idle Speed Adjustment Screw



To adjust the engine idle speed, rotate the idle speed adjustment screw on the carburetor.

- Turn the idle speed screw in (clockwise) to increase the engine idle speed.
- Turn the screw out (counterclockwise) to decrease the engine idle speed.

If idle speed adjustment is necessary, and after adjustment the cutting attachment rotates or the engine stalls, stop using the Trimmer/Brushcutter immediately!

Contact your local authorized MARUYAMA Dealer for assistance and servicing.

Trimmer/Brushcutter Operation

A WARNING

POTENTIAL HAZARD

· Foreign objects can be thrown by Trimmer/Brushcutter.

WHAT CAN HAPPEN

Contact with thrown objects can cause personal injury.

HOW TO AVOID THE HAZARD

Never operate the Trimmer/Brushcutter without the blade guard in place.

A CAUTION

- Read the Safety instructions beginning on page 3 concerning proper use of the Trimmer/Brushcutter.
- · Always wear gloves and protective clothing when operating the Trimmer/Brushcutter.

Trimmer/Brushcutter Operating Position

Before using the Trimmer/Brushcutter, check the following:

A WARNING

POTENTIAL HAZARD

If the Shaft Assembly is not correctly positioned on the operator's right side, the blade can
produce side thrust which can expose the operator and bystanders to blade contact.

WHAT CAN HAPPEN

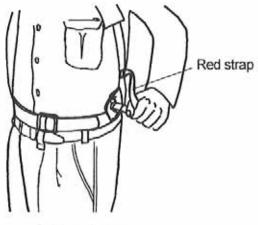
Contact with the Brushcutter blade can cause severe personal injury.

HOW TO AVOID THE HAZARD

- Always operate the Trimmer/Brushcutter with the shaft assembly on your right side.
- The operator must be set the Knapsack belt, and the shaft assembly must be on the operator's right side.
- 2. The operator's right hand should be holding the shaft grip, with his or her fingers on the throttle trigger.
- 3. The left hand should be holding the loop handle with the fingers and thumb fully enclosed around the grip.
- Accelerate and hold the engine at cutting speed before entering the material to be cut.
- Always release the throttle trigger and allow the engine to return to idle speed when not cutting.
- 6. Stop the Trimmer/Brushcutter engine when moving between work sites.
- If the cutting attachment becomes jammed, stop the engine immediately.
- Make certain all moving parts have stopped and disconnect the spark plug before inspecting the equipment for damage.
- Never use a Trimmer/Brushcutter that has chipped, cracked or broken cutting attachment or guard.

·Quick - release

In case of emergency, pull the red strap shown in illustration then harness and engine unit will slide to the ground.



Quick - release

Cutting with Nylon Trimmer Line

M WARNING

POTENTIAL HAZARD

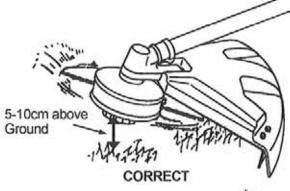
 Use of improper line could cause line to break and be thrown in operator's or bystander's direction.

WHAT CAN HAPPEN

· Use of improper line could result in serious personal injury.

HOW TO AVOID THE HAZARD

- · Use only good quality, commercial grade, weld resistant trimmer line with a diameter of 2,4mm.
- Do not use any type of wire or other string-like substance. Do not use metal-reinforced line.
- The tip of the line does the cutting. The line should stay extended while cutting.



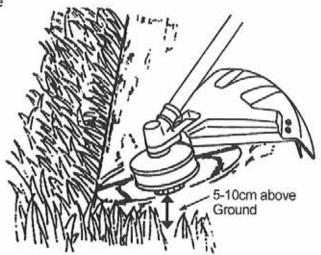
 Do not force the line into the material. Forcing the line will cause it to slap against the material, increasing line usage and causing poor cutting results.



INCORRECT

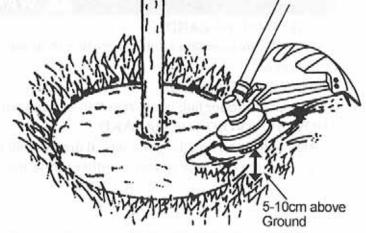
Trimming

Hold the bottom of the trimmer head about 5-10cm above the ground and at an angle. Allow only the tip of the line to make contact.



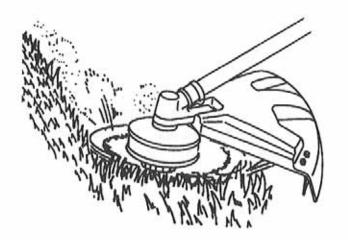
Scaling

To remove unwanted vegetation, hold the trimmer head about 5-10cm above the ground and at an angle. Allow the tip of the line to strike the ground cutting the vegetation off at the surface.



Mowing

Keep the line parallel to the ground and use a gentle side-to-side motion.



Cutting Direction of Brushcutter Blade

A WARNING

POTENTIAL HAZARD

 Cutting heavy brush from the wrong direction can cause the Brushcutter blade to kick back.

WHAT CAN HAPPEN

Contact with the Brushcutter blade can cause severe personal injury.

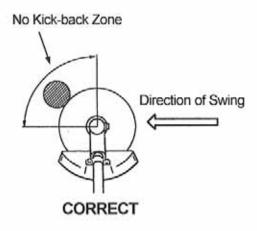
HOW TO AVOID THE HAZARD

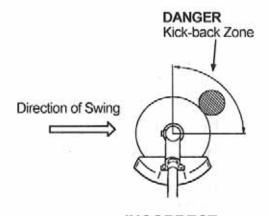
 Always swing the Brushcutter from right to left when cutting heavy brush as shown.

When cutting heavy brush, always swing the Brushcutter from right to left. Swinging the Brushcutter from left to right can cause the blade to kick back.

Cutting Blades

- Use only the correct blade (MARUYAMA genuine part) approved for the application and model Brushcutter.
- Carefully check the condition of the blades before and after operation.
- Sharpen dull blades. Replace any blade that is worn, cracked or damaged.
- If a blade produces eccentric rotation or vibration, replace the blade and the boss adapter with genuine MARUYAMA parts.





INCORRECT

Maintenance

Air Filter

Maintenance Interval

- The air filter should be cleaned daily, or more often when working in extremely dusty conditions.
- · Replace after every 100 hours of operation.

Air Filter Cleaning

- 1. Remove the foam element.
- Clean the foam element with warm, soapy water. Let the element dry completely.
- Apply a light coat of SAE 30 motor oil to the foam element and squeeze out all excess oil.
- 4. Reassemble the foam element and filter cover.



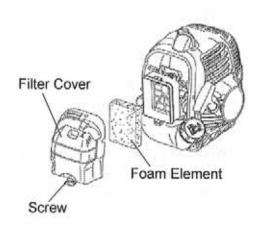
Maintenance Interval

The fuel filter should be replaced after every 100 hours of operation.

Fuel Filter Replacement

The fuel filter is attached to the end of the fuel pick-up hose inside the tank. To replace the fuel filter:

- 1. Make sure the fuel tank is empty.
- 2. Loosen the fuel tank cap.
- Using a wire hook, gently pull the fuel filter out through the fuel filler opening.
- Grasp the fuel hose next to the fuel filter fitting and remove the filter, but do not release the hose.
- 5. While still holding on to fuel hose, attach the new fuel filter.
- Drop the new fuel filter back into the fuel tank.
- Make sure that the fuel filter is not stuck in a corner of the tank, and that the fuel hose is not doubled over (kinked) before refueling.



Fuel Pick-up Hose

Wire

Fuel Filter

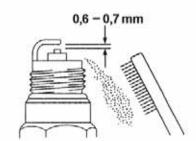
Spark Plug

Maintenance Interval

- The spark plug should be removed from the engine and checked after each 25 hours of operation.
- · Replace the spark plug after every 100 hours of operation.

Spark Plug Maintenance

- Twist the high tension lead boot on the spark plug back and forth a couple of times to loosen the boot, then pull the boot off of the spark plug.
- 2. Remove the spark plug.
- 3. Clean the electrodes with a stiff brush.
- 4. Adjust the electrode air gap to 0,6-0,7 mm.
- Replace the spark plug if it is oil-fouled, damaged, or if the electrodes are worn down.
- Do not over tighten the spark plug when installing. The tightening torque is 10,7-16,6 N·m.



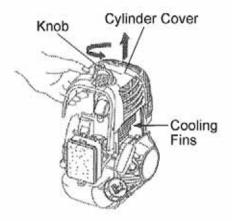
Cylinder Cooling Fins

Maintenance Interval

- The cylinder cooling fins should be cleaned after every 25 hours of operation, or once a week, whichever comes first.
- Air must flow freely around and through the cylinder cooling fins to prevent engine overheating. Leaves, grass, dirt and debris buildup on the fins will increase the operating temperature of the engine, which can reduce engine performance and shorten engine life.

Cooling Fin Cleaning

- 1. Loosen the knob and lift off the cylinder cover.
- Clean all dirt and debris from the cooling fins and from around the cylinder base.
- 3. Reinstall the cylinder cover.



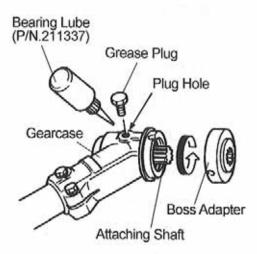
Gearcase

Maintenance Interval

The gearcase should be checked for lubrication after each 30 hours of use.

Gearcase Lubrication

Remove the cutting attachment and the boss adapter. Clean any dirt and debris from the area between the boss adapter and the gearcase. Remove the grease plug from the side of the gearcase. While rotating the attaching shaft, inject lithium-base bearing lube (P/N 211337) through the plug hole until the gearcase is full. Reinstall the boss adapter and grease plug.



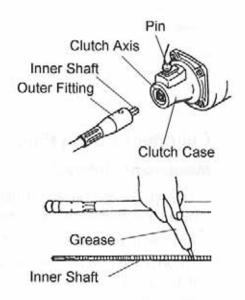
Flexible Shaft

Maintenance Interval

The flexible shaft should be lubricated after each 20 hours of operation.

Flexible Shaft Lubrication

- Pull out the outer fitting from the clutch case, with pulling up the pin.
- Pull out the inner shaft from the flexible outer, and apply half a tubeful of grease to entire length of the inner shaft evenly.
- Insert the inner shaft into the flexible outer and reinstall the outer fitting to the clutch case, with pulling up the pin.



General Cleaning and Tightening

A WARNING

POTENTIAL HAZARD

When engine is running, attached tool and other parts are moving.

WHAT CAN HAPPEN

· Contact with moving tool or other moving parts could cause serious personal injury or death.

HOW TO AVOID THE HAZARD

· Always turn off your Trimmer/Brushcutter before you clean or perform any maintenance on it.

The MARUYAMA Trimmer/Brushcutter will provide maximum performance for many, many hours if it is maintained properly. Good maintenance includes regular checking of all fasteners for correct tightness, and cleaning the entire machine.

Storage

For long term storage of the Trimmer/Brushcutter:

- Empty the fuel tank into a suitable fuel storage container.
- 2. Run the engine to remove any fuel that may remain in the carburetor.
- 3. Perform all regular maintenance procedures and any needed repairs.
- Remove the spark plug and squirt a very small amount of engine oil into the cylinder.

A CAUTION

POTENTIAL HAZARD

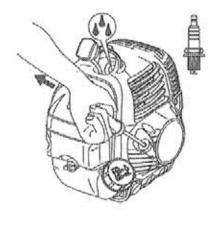
 Oil may squirt out of the spark plug opening when you pull the starter grip.

WHAT CAN HAPPEN

· Oil can cause eye injuries.

HOW TO AVOID THE HAZARD

- Protect your eyes and keep your face away from the spark plug opening.
- Pull the starter grip once.
- 7. Slowly pull the starter grip to bring the piston to the top of the cylinder (TDC).
- 8. Reinstall the spark plug.
- 9. Store the Multi-Cutter in a dry place away from excessive heat, sparks or open flame.



Troubleshooting

Problem	Cause	Action
Engine will not start	STOP switch set to off position Empty fuel tank Primer bulb wasn't pushed enough Engine flooded	Move switch to on position Fill fuel tank Press primer bulb until fuel flows Use warm engine starting procedure
Engine will not Idle	·Idle speed set incorrectly	·Set Idle speed
Engine lacks power or stalls when cutting	Throttle wire has come loose Dirty air filter	Tighten throttle wire Clean or replace air filter

If further assistance is required, contact your local authorized MARUYAMA service dealer.

Specifications

	BKC5020RS
Engine displacement, cm ³	49,9
Spark plug	NGK BPMR6Y
Electrode gap, mm	0,6 - 0,7
Ignition System	Solid State
Type of carburetor	Diaphragm
Fuel tank capacity, litters	1,0
Weight without fuel, guard and cutting attachment, kg	10,2
Fuel Mixture	2 – Cycle Oil Mix 25:1 Ratio
Cutting equipment grass blade (option) Trimmer head (option)	Ø255 3-teeth Ø255 4-teeth, Ø255 8-teeth Semi – auto head (L) 5