



POWERED by **HONDA**™

Walk Behind Brush Cutter

Safety Manual

Initial Setup

User's Manual

Operating Instruction

Standard Maintenance



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This product uses a chainsaw chain with many sharp cutting edges. If these edges contact your skin, they will cut you, even if the chain is not moving!



Improper use of this tool may cause serious injury or death to user or others. For safety reasons, this tool should not be used around bystanders or animals, and should always be used only for its intended purpose. User is responsible for understanding and following all safety precautions associated with and applicable to this unit.



Read and understand the provided users manual regarding fueling and maintaining the engine on this product!



Never lend, rent, or sell this unit without this manual!

Safety Guide



READ AND UNDERSTAND ALL SAFETY AND USER INFORMATION IN THIS GUIDE AND THE PROVIDED HONDA ENGINE MANUAL BEFORE USING THIS PRODUCT!



FAILURE TO FOLLOW ALL SAFETY PRECAUTIONS MAY RESULT IN SERIOUS INJURY OR DEATH!



ALWAYS WEAR EYE (ANSI Z87+) AND EAR PROTECTION (Min. 23dB reduction rating), AS WELL AS CUT RESISTANT OR STEEL TOED BOOTS, GLOVES, AND AN OSHA APPROVED HARD HAT WHEN OPERATING OR SERVICING THIS PRODUCT!



Always be aware of your terrain when cutting with your Path-Maker brush cutter. Never cut on slopes or hills with more than a 5 degree grade. Watch for any tripping hazards like roots, and fall hazards such as holes. Always have a clear line of sight for the area you are cutting, and any surrounding area. **Never cut into an area you cannot clearly see!**



Maintain proper footing and handling at all times, and walk at a safe pace while cutting. Never run with your unit! Never operate this unit with one hand! Failure to maintain proper footing may cause injury or death.



Never use this unit without ensuring proper chain tension. To learn about proper tension, and how to tension your cutting chain, refer to the appropriate section in this manual.



Never start the engine with the bar nuts loose. Bar nuts should remain tightly fastened at all times.



Prolonged use of this unit, or any tool that exposes user to vibration may produce whitefinger disease or carpal tunnel syndrome. These conditions reduce the hand's ability to feel, produce numbness, tingling, or burning sensations, and may cause nerve and circulation damage as well as tissue death. All factors that contribute to whitefinger disease are not known, but cold weather, smoking, and diseases or physical conditions that affect blood vessels, as well as blood transport, as well as high vibration levels and long term exposure to vibration are mentioned as factors in the development of whitefinger disease. Continual and regular users should carefully and frequently monitor the condition of their hands and fingers, and seek immediate medical advice if any of the above symptoms present themselves.



Never operate or start this unit if any part of the unit is damaged or missing, if the chain is not at proper tension, or any part of the unit is not securely assembled. If the unit sustains impact from a fall or from debris landing on it, carefully inspect unit for damage before continuing use.



Always inspect the throttle trigger and throttle lockout before starting the engine. Both the throttle trigger and lockout should move freely, and spring back to the disengage position when released, and the engine kill switch should click between “O” and “I” with no issues. When starting, pull the starter rope directly away from the unit, never pull it up, down, or to the side. Doing so will cause accelerated wear to the rope, and may result in the rope snapping off. Never wrap the starter rope around your hand, and do not let it snap back. Gently guide it back into place.



Proper engine idle should never be fast enough to engage the clutch and move the chain without applying throttle. If your engine is engaging the chain without applying throttle, refer to the engine manual on adjusting the idle down.



Never use this unit in inclement weather or conditions, including but not limited to: wind storms, lightning, rain, snow, ice, and mud.



While your brush cutter is a one person tool, never use this tool alone. Bystanders should stay out of area of operation while the cutter is in use, but should always be within shouting distance in case of emergency. When you are clearing the brush you've cut, set the unit aside, and shut off the engine. Even when the engine is off, stay clear of the cutting chain. Never leave your unit running unattended.



Never let an unauthorized user operate this unit! All operators need to fully read and understand all safety and operation information regarding this product and any and all hazards associated with its use.



Never use this unit or any power tool when you are fatigued, sleepy, under the use of any drugs or alcohol, or in any other state that may affect your ability to safely use this product, or inhibit your reflexes and response time.



When cutting anything over 4 feet tall, always be aware of your surroundings. Know where the debris and brush will fall, and ensure any potential objects, people, or animals are clear 360 degrees around the object you are cutting. Ensure anyone in the area, including the operator is wearing a proper hard hat, and any other necessary protection when working with falling risks.



Always be sure to use appropriate fuel, oil, and chain lubricant for your unit. This information can be found in your users manual, and your Honda engine manual.



Minors should never use this unit, or be allowed in the area of operation for this unit while in use.



Never touch the chain with any part of your body while the engine is running; even if the cutting chain is not engaged.



When cutting, make sure that the cutting chain does not touch any foreign objects such as rocks, fences, screws, etc. These can be flung out or damage the cutting chain and the unit.



If the rotating cutting chain strikes a hard surface, the chain may emit sparks. These sparks may cause ignition of loose or spilled fuel, or ignite other combustible materials such as dry brush or grass. Do not use this unit around such materials, or in dry conditions when there is a risk of wildfire. Consult your local fire authority for information on conditions in your area.



Use caution when cutting fractured or broken wood, as this may throw debris out around the cutting chain that could damage the user, bystanders, or property.



To avoid risk of electrocution or electric shock, never operate this unit in the vicinity of any wires or cables that have potential to carry electric current. Use extreme caution when cutting near power lines, and whenever possible, have power cut from the lines you are working near by contacting the local power company controlling the lines.



The wheels and frame of this unit are designed to substantially reduce kickback experienced by other chain cutting devices such as chainsaws. While this kickback is much less likely, and less severe, there is still a risk of kickback with this and any device with a high speed cutting chain. Understanding how kickback affects a cutting device can help to reduce chance of injury in the event kickback is experienced.



Never run the unit above idle for more than 2 seconds when the chain is pinched or caught in a cut. Clutch slippage can cause substantial damage to the engine and clutch, and could result in chain engaging at idle due to a damaged clutch. Shut the engine off, and carefully examine your unit after an incident where the chain was pinched or caught.



Use only a Path-Maker approved bar and chain on this unit. Failure to do so may result in damage, injury, or death to user, others, the unit, property, etc. Never use any modified or non approved bar, chain, or attachment.



In the event debris is lodged in the cutting chain, shut off engine immediately, and with gloves on, safely attempt to remove the debris. During this process, the chain may lurch slightly due to stored kinetic energy or rotational force. Be aware of this, and keep all body parts clear of the cutting chain.



Use of the cutting chain, including sharpening, creates dust, airborne powder, and fumes that contain chemicals known to cause respiratory problems, birth defects, cancer, and reproductive harm. If you are unfamiliar with these risks, consult your employer or a governing safety body such as OSHA or NIOSH.



Inhalation of certain dusts, especially organic dusts such as mold, can cause susceptible persons to have respiratory issues, allergic reactions, or asthmatic attacks. Substantial or continued inhalation of dust and airborne contaminants may cause respiratory or other illness. This includes, but is not limited to: wood dust, oil mist from the chain lubrication, and exhaust fumes. Some of these fumes are odorless and colorless. Always do your best to limit and control these with steps like keeping a sharp chain to limit fine wood dust, standing so that the wind blows contaminants away from the user, rather than towards the user, and working in well ventilated areas. Always follow the recommendations of the EPA, OSHA, NIOSH, and other relevant occupational trade and health organizations regarding dust, fumes, and airborne particulates. When excessive dust is present and cannot be avoided, user and any surrounding personnel within a 200 yard radius should be fitted with a proper NIOSH respirator to limit dust inhalation.



If you suspect you are cutting into or near an object or area containing asbestos, immediately stop cutting, and contact the appropriate governing entity. Breathing in asbestos dust can cause life threatening injuries, illness, and cancer.



Never start the engine with the throttle or throttle lockout engaged. This could cause unintentional rotation of the cutting chain and serious injury or death to the user. Due to the centrifugal clutch force, the chain will continue to rotate for a very short period of time once the throttle is released. During this time, serious injury or death can occur from contact with the rotating cutting chain.



Only use your brush cutter outdoors, in well ventilated, well lit areas. Never use the cutter in any area where visibility is limited or obstructed.



Continue to remain aware of changes in your surroundings as you use your unit. Landscape can change quickly and without warning, and could cause serious or fatal injuries, falls, or damage to property or unit.



Be sure that bar, chain, and unit frame are clear from any obstruction before starting and operating unit.



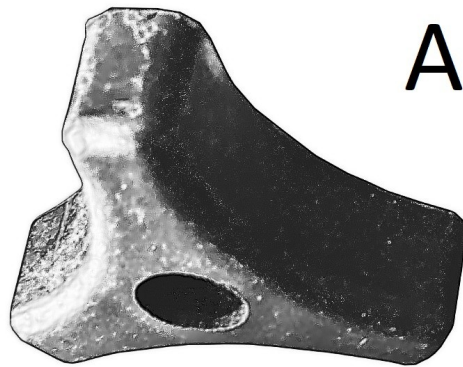
To ensure a proper and safe cut, always begin and continue a cut at full throttle. Do not make contact with material you intend to cut before chain is engaged. This can cause damage and wear to both engine and clutch.



Periodically inspect your unit to make sure all parts are undamaged, and in proper working order. Replace any missing or damaged parts immediately, using Path-Maker approved parts. Any aftermarket replacement parts not approved by Path-Maker can cause serious injury or death to the user and bystanders, or substantial damage to the unit or property.

Initial Setup

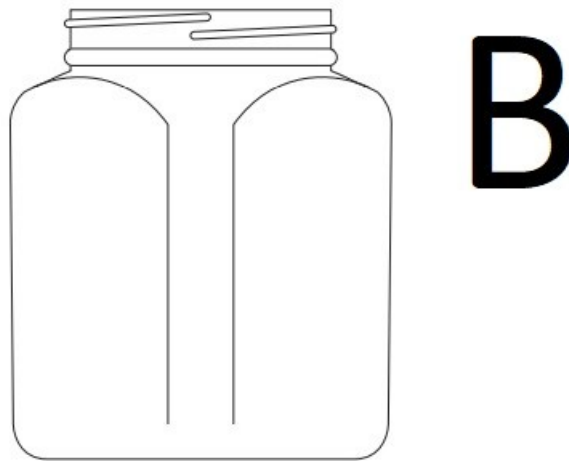
Upon receiving your Path-Maker brush cutter, everything should be fully assembled with the exception of the guide bar and cutting chain. Once you remove your unit from the box, flip up the handle and tighten the two nuts (A).



From there, you need to add your fluids.

Because this unit uses a 2-Stroke Engine, you need to use 25:1 or 40:1 gas/oil mix.

Open your chain lubricant tank (B), and fill it with bar and chain oil.



Once these are filled to proper levels, you're ready to start up your unit. Press the fuel primer bulb 5x or until gasoline fills it. Turn the choke on, and ensuring your throttle is not depressed, and your kill switch is in the "I" position, pull the starter handle to start the engine. The first startup may take several pulls. Be sure to pull the rope directly out from the engine, to avoid friction and wear on the rope from rubbing on the starter handle rest. **Failure to pull straight out may result in the rope fraying and snapping!**

When the engine is on, safely inspect that the clutch is not rotating at idle speed (without any throttle). If it is rotating at idle, shut down the unit and adjust the idle speed by turning the idle screw on the engine counter clockwise.

Once you have confirmed the idle is set appropriately, engage the throttle slightly, by fully pressing the throttle lockout, and pressing the throttle roughly 1/3 of the way down. Your engine should rev up and the clutch should begin to spin.

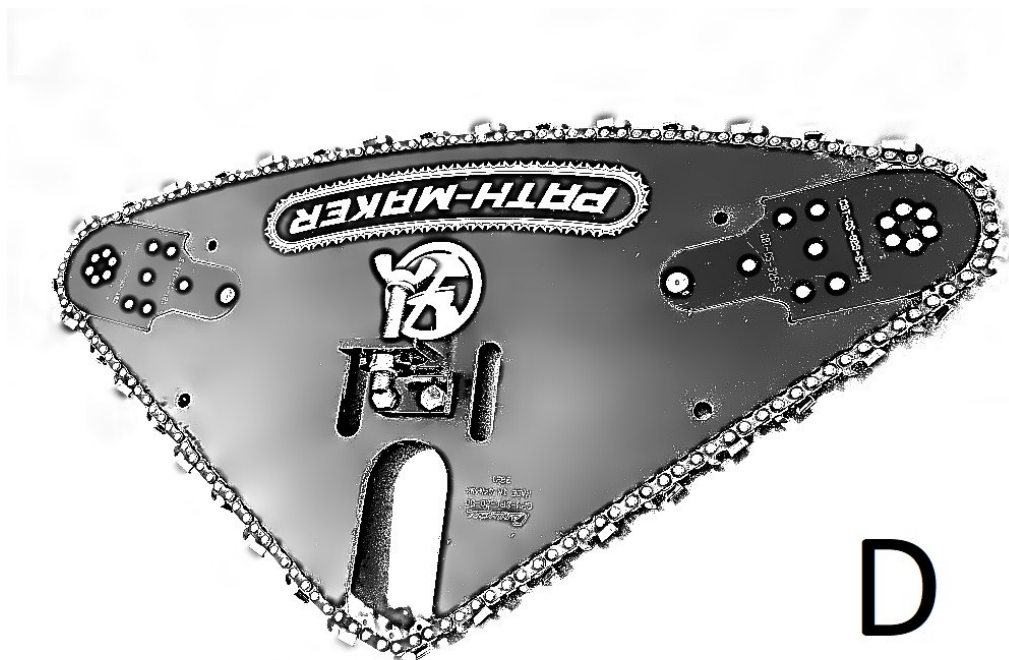
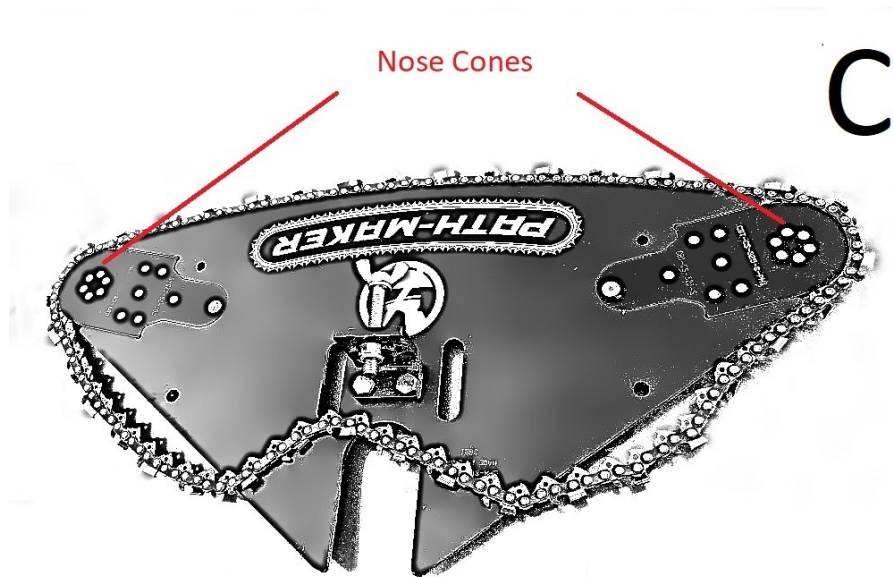
At this point, it will create suction and start pulling bar and chain oil out of the reservoir and into the tube. Continue to hold the throttle at that point until oil has been pulled through the entire tube system.

Once your oil has filled the system, you are ready to install the bar and chain!

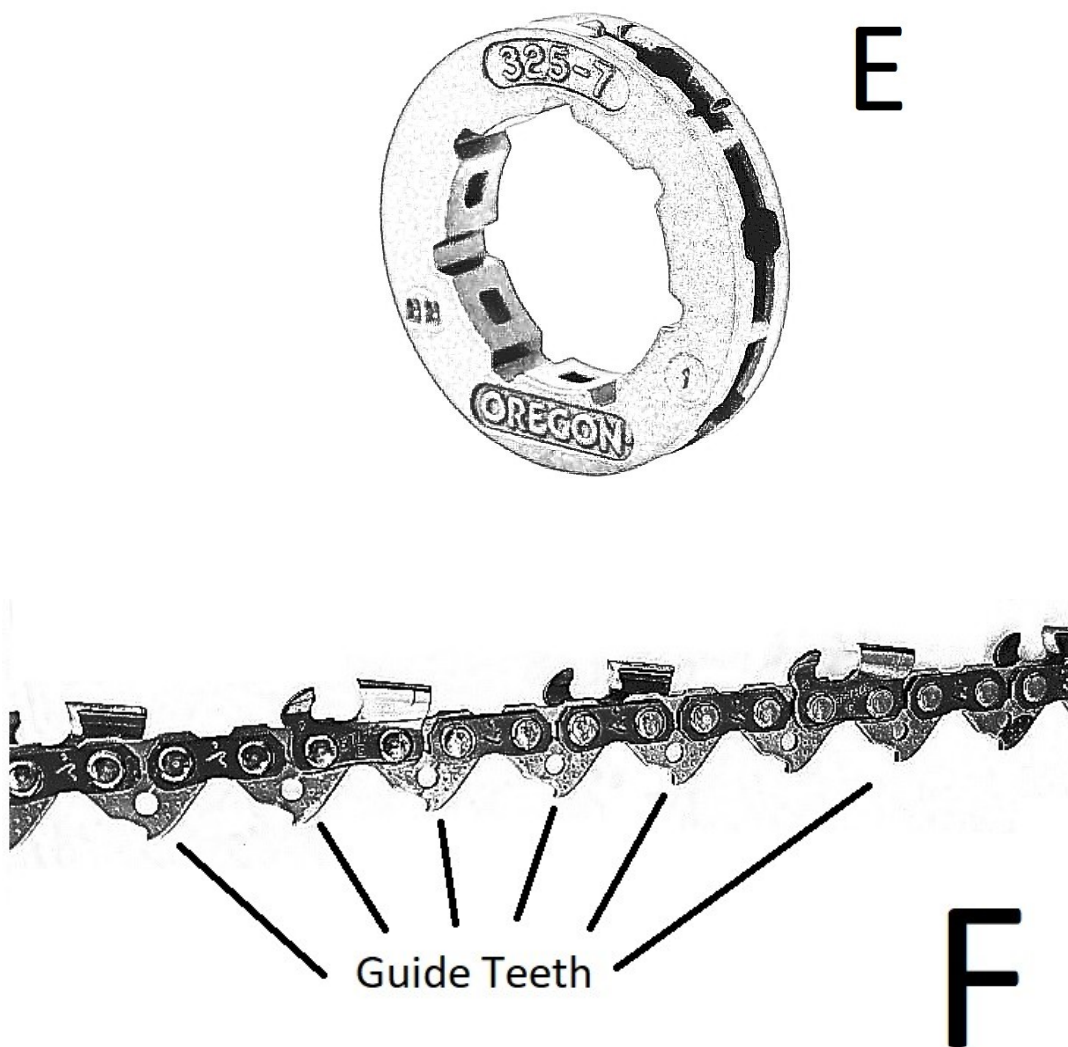
Whenever handling bar and chain, always use sturdy cut resistant gloves! The cutting chain is full of many sharp edges that will cut you even if the chain is not moving!

First begin by installing the chain on the bar.

When installing, bring the chain over both nose cones before bringing it over the bottom of the bar (C). Your chain will spin **CLOCKWISE**. Put the chain on so the teeth and arrows are facing the direction they will be spinning.

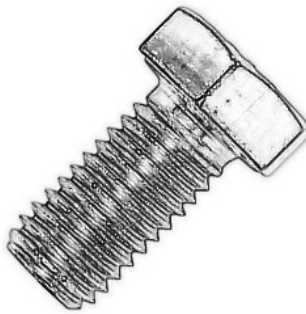


Once the chain is fully around the bar, and the guide teeth are properly in place (D), slip the chain around the clutch sprocket (E), ensuring that the guide teeth (F) are appropriately inside the sprocket.



Once the bar and chain are in place, insert the bolts (G) into the bar mount bracket(H) and through the holes in the bar, and hand tighten the nylon stop nuts onto the bottom.

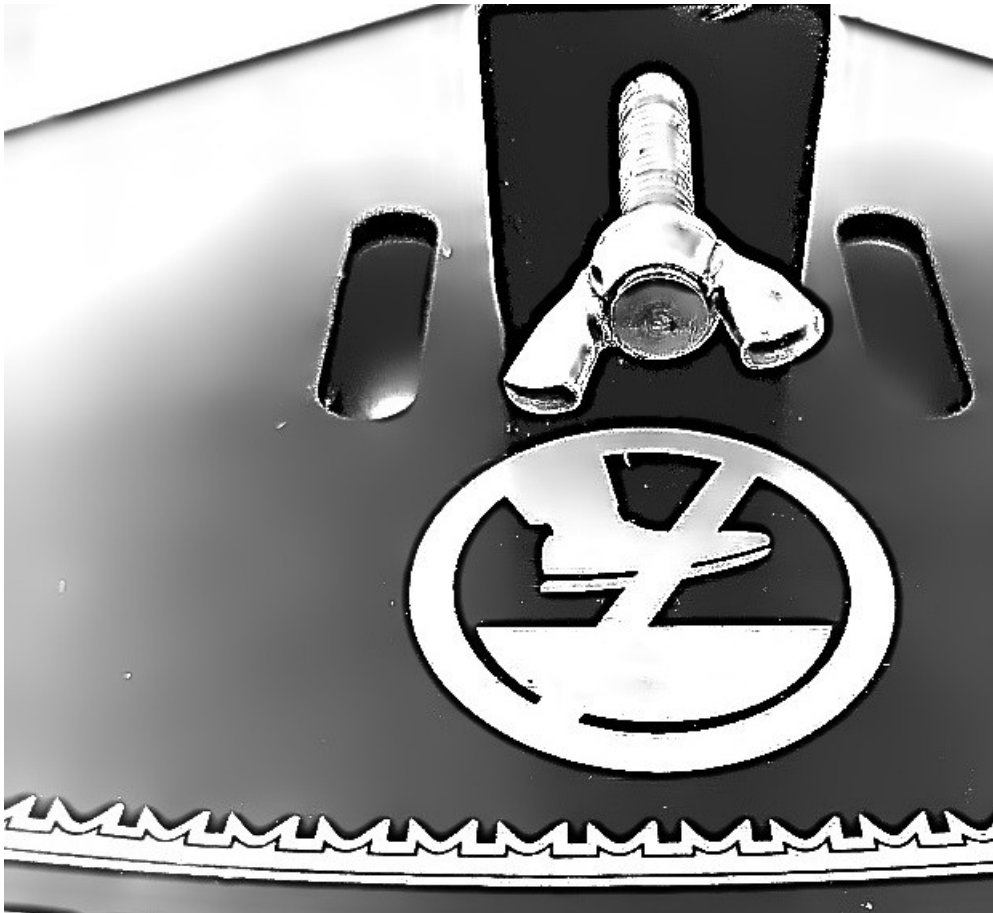
G



H



Then use the tension wing bolt (I) to apply proper tension to the chain. This is done by rotating the bolt clockwise. It will push against the frame of the unit and hold tension on the chain.



At this point you will check the bar to ensure proper tension. This is done by carefully gripping the chain on either side of the bar, and pulling it away from the bar. When the chain is under proper tension, it should come away from the bar 0.25 inches.

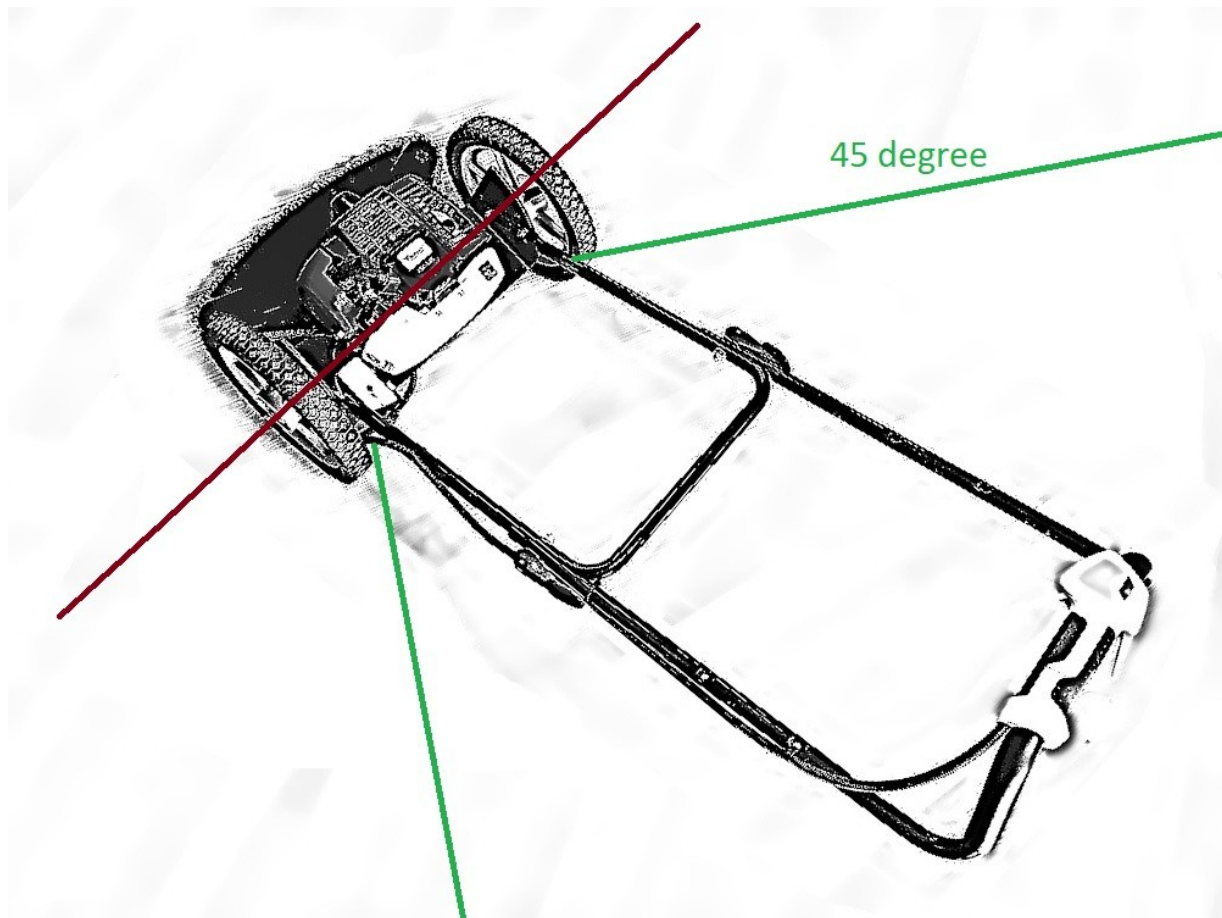
NEVER CHECK TENSION ON THE FRONT OF THE BAR. THIS WILL ALWAYS BE TIGHT EVEN WHEN THE CHAIN IS NOT UP TO PROPER TENSION. Once this tension is reached, ensure your bar is aligned straight, with even distance between both wheels, and tighten the nuts onto the bolts using two $\frac{3}{4}$ inch wrenches or socket wrenches. Tighten these down hard (roughly 85 ft lbs) to avoid bar movement and unnecessary re-tensioning of the chain.

Attach the oil tube to the oil bolt on the bar by firmly pressing the tube over the bolt until it is fully inside the tube. Because the oiling system has not been used on that chain, we **HIGHLY** recommend pouring a small amount of bar and chain oil along the cutting chain once the bar is securely in place and you are ready to use your brush cutter. This prevents premature chain wear.

Standard Operation Instruction

Safety Zones:

When using your Path-Maker brush cutter, always stand in the operator safety zone. The safety zone is defined as a 45 degree angle from either side of the center of the handle. This is marked in green in the diagram below. **You should never be outside this zone while cutting with your unit!** The red line in the diagram represents the “STOP” zone. **Nothing should pass that point while the engine is running!** Following these simple steps while using your brush cutter will ensure that you are at a safe distance from the cutting chain while the unit is in operation. **Failure to follow these safety precautions may result in serious injury or death!**



Pre-Start Checking:

Before every use, check the gas, oil, and chain lubricant levels to ensure they are at a sufficient level to operate your unit for the intended duration. Check the tires to ensure proper inflation is present. With gloves on, carefully inspect the chain for proper tension, and make sure the oil tube is securely attached to the oil bolt. Inspect the unit for any damaged or missing parts, and check for proper operation and movement of the kill switch and throttle lockout. When adding gasoline: **THIS UNIT DOES NOT TAKE STRAIGHT GASOLINE. YOU MUST USE 25:1 OR 40:1 GAS/OIL MIX!**

Prepping the Area:

Once you have located the area and brush you wish to cut, begin prepping the area. This is done by walking through and visually inspecting the area for any hazards (falling, tripping, debris, etc.), and clearing any rocks or hard objects out of the cutting path. If there are leaves or tall/dense grass, clear these with a rake, weed eater, or other form of vegetation cutter to ensure an unobstructed view of the ground in your cutting path. If the entire cutting path cannot be cleared before cutting, clear as far as safely possible, and make frequent stops in cutting to continue clearing as new areas become accessible. This process greatly reduces chances of injury, falling, and damage to unit. If you are cutting near water, ensure you are wearing a proper flotation device such as a life jacket if you are not a strong swimmer, or if the water is moving (has a current).

Making the Cut:

When preparing to make a cut with your unit, first ensure that the area is free from obstruction, bystanders, and any other hazards. You should be able to clearly see everything around the area you intend to cut, and be aware of any falling hazards.

Make sure any helpers around you maintain a minimum distance of six feet from the unit while cutting! Never make a cut on a steep grade. Path-Maker defines a steep grade as any slope of 5 degrees or more. **Cutting on a steep grade substantially increases the risk of falling or slipping!** Once these steps are completed, approach the brush you wish to remove, and apply full throttle **BEFORE** the cutting chain makes contact with the brush, and maintain full throttle for the duration of the cut. Do not cut in at an angle, as this may cause binding or stalling of the saw. Cut at a flat level angle. Never force the cutting chain into what you are cutting! Guide the chain gently through the brush you are cutting. If it is not cutting through the brush with gentle guidance, your chain may need sharpening. Once your cut is complete, release the throttle and back carefully out of the cutting area so you or a helper can remove the brush that has just been cut. **Never attempt to cut anything thicker than four inches in diameter!** Once the area is cleared, you can return to the area and cut the remaining brush lower to the ground if desired. **Never leave a running unit unattended!** Follow these instructions along with brush type specific instructions below whenever using your brush cutter.

For Bamboo Removal:

When cutting bamboo with your brush cutter, always be aware of where the bamboo stalks will fall, and ensure you are cutting from a safe location from the falling bamboo. Bystanders should be kept 1.5x the height of the bamboo away. For example, if cutting bamboo that is 20 feet, bystanders should be at least 30 (20x1.5) feet away.

Be aware of any power lines that the bamboo is touching, or may fall into when cut!

Wear a hardhat when cutting bamboo to avoid head injury from overhead falling hazards. Be aware that although this unit is capable of cutting off flush with the ground, the user has control of how close things are cut. If you leave stubs sticking up as you cut, **THESE WILL BE TRIPPING AND FALLING HAZARDS!** Because of this, we highly recommend cutting off flush with the ground. As you accumulate cut stalks of bamboo, do not pile them in an area that obstructs your cutting path, or that obstructs your exit from your cutting path!

For shrub/bush removal:

When removing shrubs and bushes, it is important to ensure no hazards or debris are inside of the shrubs or around the base. **Never cut a shrub or bush if you cannot make contact with the base without pushing into the shrub or bush with your body.** This creates an unsafe cutting condition. In this event, trim back the shrub or bush with a hedge trimmer or loppers to give yourself a safe path to cut the shrub or bush. Always ensure no lines that could carry electricity, such as extension cords or decorative lights are present in your cutting area.

For sapling/small tree removal:

When removing saplings and small trees, it is important to fully understand how and where the sapling will fall, and plan your cuts accordingly to avoid being hit by the falling sapling. Ensure no power lines are touching the saplings, and that there are no power lines the saplings could fall against when cut down. Always wear a hardhat when cutting saplings or small trees, and cut one at a time. Bystanders should be kept 1.5x the height of the sapling/tree away. For example, if cutting a tree that is 20 feet, bystanders should be at least 30 (20x1.5) feet away. **Never cut a sapling or small tree that is leaning more than 4 degrees in any direction, and never cut anything that is leaning towards you!**

For Stump/stub Removal:

When removing a stump or tree stub, make sure there is nothing inside the object such as nails, screws, wires, etc. Clear any dirt or debris away from the stump/stub before beginning your cut. Following standard cutting directions, ensure full throttle is used through the duration of the cut, and ensure the cut is level (ie, not cut at an upwards or downwards angle). For inexperienced users, it may be best to make multiple cuts, going slightly lower each time until desired stump/stub height is reached. **Gently guide the cutting chain through the cut, do not force it!** For safety reasons, you should only cut stumps/stubs that are less than 20 inches tall.

For Thicket Removal:

Thickets pose a particularly difficult challenge as they almost always obstruct the view of what you're cutting, and **vines can create tension that causes brush to snap upwards or sideways when cut.** For this reason, we advise **extreme caution** when cutting into thickets. **Only cut the out layer of the thicket that you can clearly see, and immediately clear the cut brush before continuing to ensure you can clearly see the path for your next cut.** Contact any applicable power companies and have power cut to the area within a **100 yard radius** of your cut path. Ensure there are no cords or conductive materials running to the area you plan to cut. When cutting into dense terrain, the risk of hitting chain dulling debris such as small rocks rises significantly. When cutting thickets, the operator safe zone of 45 degrees on either side is restricted to 15 degrees on either side. **Thorns and vines will pose additional tripping hazards, and may be very difficult to see in a thicket.** Only cut thickets in sunny conditions, and at hours where peak sunlight is reached to increase visibility.

For Tall Grass and Weeds:

While your unit will cut these down fairly well, we don't advise using your brush cutter for this purpose. The main concern when cutting this is the lack of visibility as to the hazards in the grass and weeds including electrical lines or cables. This can cause injury, death, or damage to the units, bystanders, or property.

For Clearing Under Fences:

While clearing under fences is a very important ability of this brush cutter, it's important to go through the proper safety procedures. First, examine both sides of the fence to ensure no hazards or debris are present. If they are, safely remove them before cutting. If the fence is on a property line, make sure to get consent of the neighbor(s) on any sides of the fence before cutting. If there are any animals in the fenced in area on either side, ensure they are taken out of the fenced area before cutting. Have a helper on the opposite side of the fence walk with you while you cut to ensure no unexpected hazards arrive that you may not be able to see. Ensure your helper stays at least eight feet from the cutting chain at all times.

Proper Maintenance

This section will cover proper maintenance of your brush cutter. These steps should be followed to ensure the longest possible life of your unit and all its parts.

Proper Engine Maintenance:

Proper engine maintenance is important in ensuring the longevity of your unit. While this engine requires very minimal maintenance, you should frequently examine your engine for any signs of damage, such as cracks or parts broken off of the plastic engine cage.

Proper Bar and Chain Maintenance:

Your bar and chain are two of the most important parts of your unit. As such, they should be well cared for. When you are finished using your unit, or when you are storing it for an extended period, you should carefully apply a layer of oil on the bar and chain. This is done to inhibit rust, and keep the bar as smooth as possible, and the cutting teeth as sharp as possible. **Whenever working with the bar and chain, wear proper protective clothing and gloves, as the chain will cut you even when it is not moving.**

Proper Long Term Storage:

When storing your unit for an extended period of time, be sure to perform the following steps:

1. Safely remove the chain, and store it in a safe, secure place.
2. Carefully apply a layer of oil to the bar as mentioned above.
3. Completely empty the chain lubricant tank.
4. Keep your unit in a dry place, and out of the elements.
5. Store your unit in a place where it is not accessible to unauthorized users.
6. Ensure all manuals and guides are stored in the manual pouch on the unit.
7. Empty gas tank completely into a gasoline safe container.

Additional Safety Note:

While we have done our best to cover all of the safety issues that may arise while using your product, it is also important to utilize common sense, and to follow the guidelines laid out in this document. When in doubt, do not cut. It's better to come back another day than to end up in the hospital or dead today.

If you see a Path-Maker brush cutter user operating your brush cutter in an unsafe or improper manner, alert them to the issue, and safely retake possession of your brush cutter. That individual should reread this manual and properly understand all safety aspects of this product before being authorized to use your unit again. This unit aims to be much safer than a standard chainsaw, but still possesses a very sharp cutting chain. Respect your unit for your safety and the safety of others around you. Following these guidelines will help to provide a safe and efficient cutting experience for everyone.