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ATTACHMENTS



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OPERATOR'S MANUAL

MANUEL D'UTILISATION

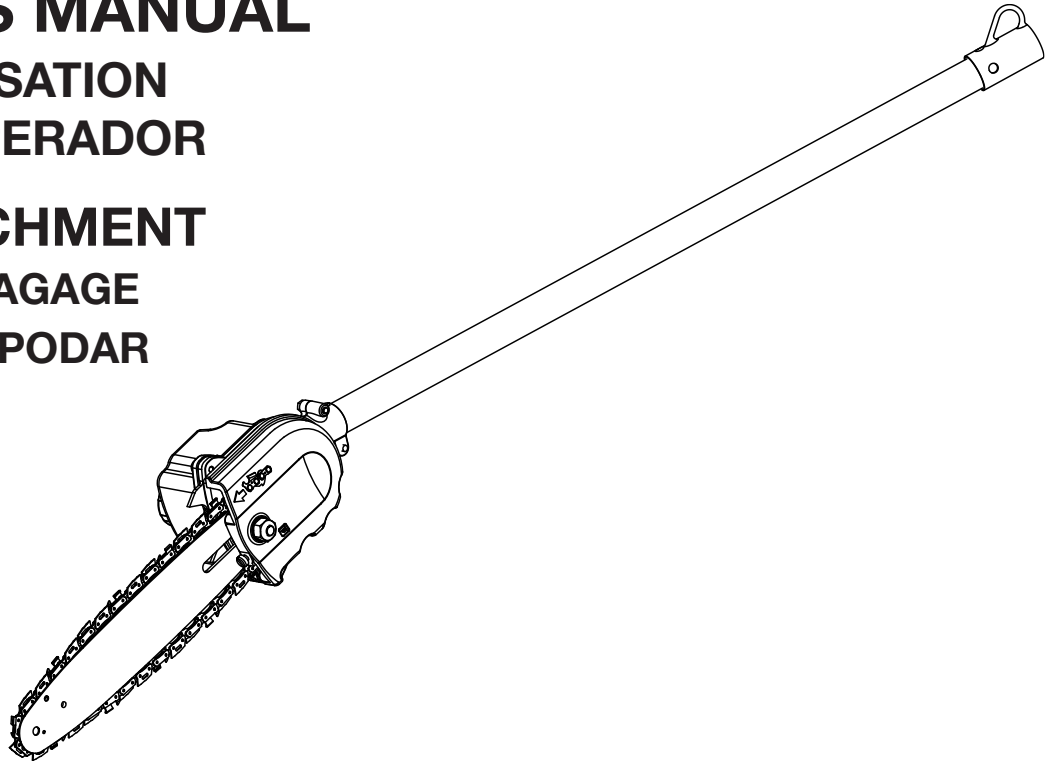
MANUAL DEL OPERADOR

PRUNER ATTACHMENT

ACCESSOIRE D'ÉLAGAGE

ACCESORIO PARA PODAR

RY15520



Your pruner attachment has been engineered and manufactured to our high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

⚠ WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

SAVE THIS MANUAL FOR FUTURE REFERENCE

Votre accessoire d'élagage a été conçu et fabriqué conformément aux strictes normes de fiabilité, simplicité d'emploi et sécurité d'utilisation. Correctement entretenu, il vous donnera des années de fonctionnement robuste et sans problème.

⚠ AVERTISSEMENT : Pour réduire les risques de blessures, l'utilisateur doit lire et veiller à bien comprendre le manuel d'utilisation avant d'employer ce produit.

Merci de votre achat.

**CONSERVER CE MANUEL POUR
FUTURE RÉFÉRENCE**

Su nuevo accesorio para podar ha sido diseñado y fabricado de conformidad con estrictas normas de calidad para brindar fiabilidad, facilidad de uso y seguridad para el operador. Con el debido cuidado, le brindará muchos años de sólido y eficiente funcionamiento.

⚠ ADVERTENCIA: Para reducir el riesgo de lesiones, el usuario debe leer y comprender el manual del operador antes de usar este producto.

Le agradecemos su compra.

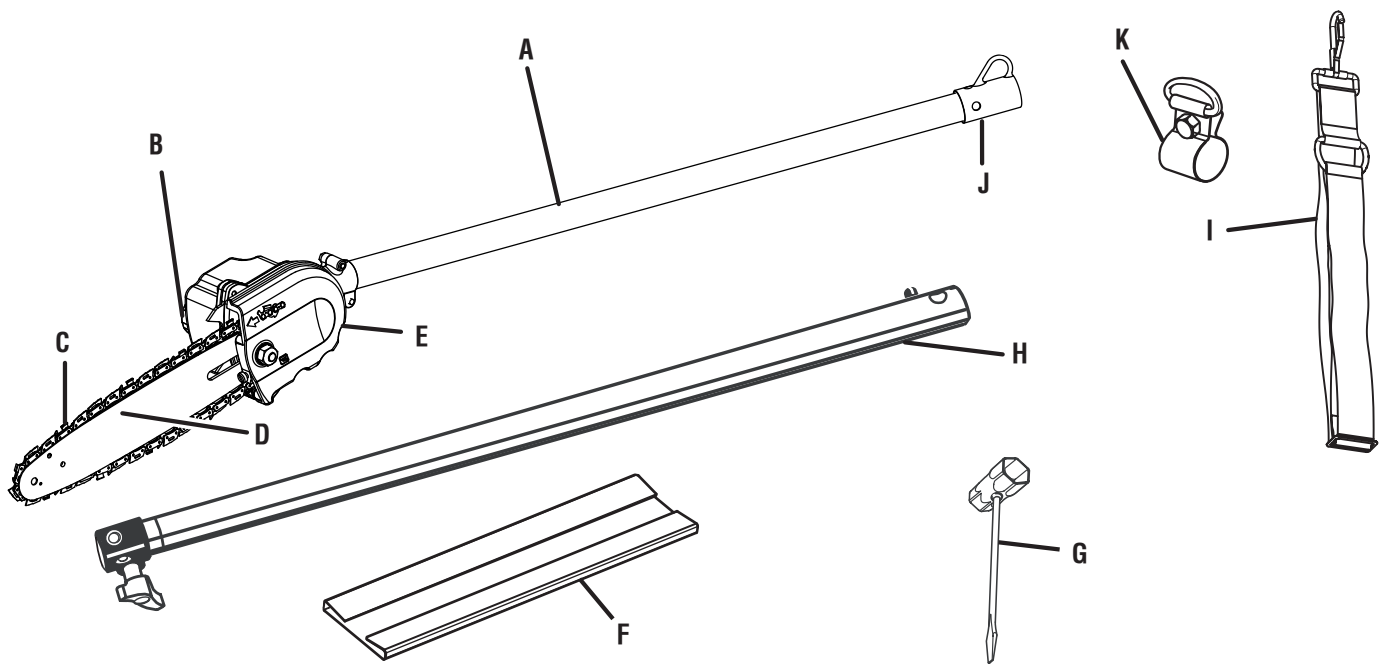
**GUARDE ESTE MANUAL PARA
FUTURAS CONSULTAS**

See this fold-out section for all of the figures referenced in the operator's manual.

Consulter l'encart à volets afin d'examiner toutes les figures mentionnées dans le manuel d'utilisation.

Consulte esta sección desplegable para ver todas las figuras a las que se hace referencia en el manual del operador.

Fig. 1

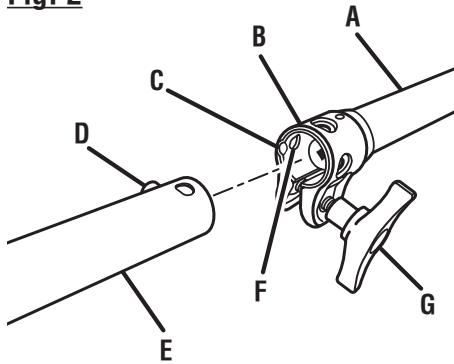


- A - Pruner attachment shaft (arbre d'accessoire d'élagage, eje del accesorio para podar)
- B - Chain oiler tank cap (capuchon du réservoir d'huile de chaîne, tapa del tanque lubricador de la cadena)
- C - Chain (chaîne, cadena)
- D - Bar (guide, barra)

- E - Gear case (carter d'engrenages, caja de engranajes)
- F - Scabbard (fourreau, funda)
- G - Combination wrench (clé mixte, llave de combinación)
- H - Extension shaft (arbre de rallonge, eje de extensión)

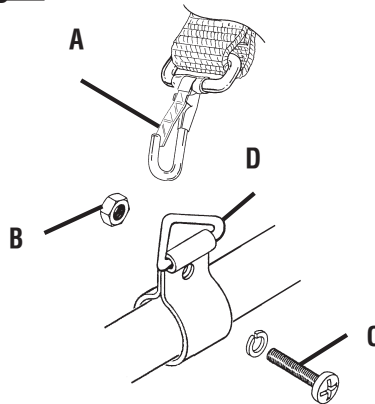
- I - Shoulder strap (bandoulière, correa para el hombro)
- J - Hanger cap (capuchon de suspension, tapa de suspensión)
- K - Strap hanger (dispositif d'accrochage, colgador de la correa)

Fig. 2



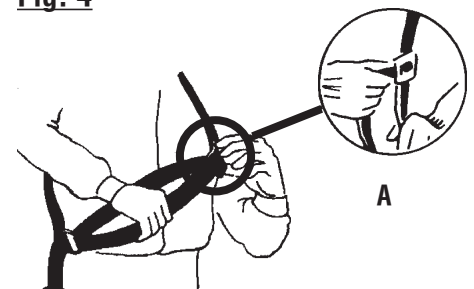
- A - Power head shaft (arbre moteur, cabezal motor eje)
- B - Coupler (coupleur, acoplador)
- C - Guide recess (renforcement du guide, hueco guía)
- D - Button (bouton, botón)
- E - Extension shaft (arbre de rallonge, eje de extensión)
- F - Positioning hole (trou de positionnement, orificio de posicionamiento)
- G - Knob (bouton, perilla)

Fig. 3



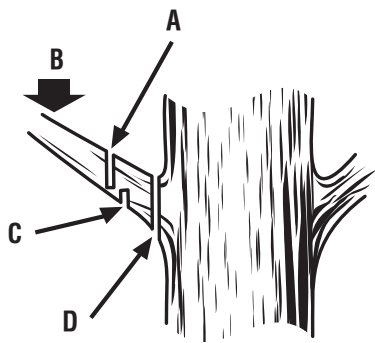
- A - Shoulder strap clip (boucle, clip de la correa para el hombro)
- B - Lock nut (écrou frein, tuerca)
- C - Bolt (boulon, perno)
- D - Strap hanger (dispositif d'accrochage, colgador para la correa)

Fig. 4



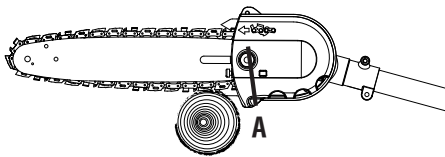
- A - Slide clip up or down to adjust shoulder strap (faire glisser la boucle vers le haut ou le bas pour ajuster la bandoulière, deslice el clip hacia arriba o hacia abajo para ajustar la correa para el hombro)

Fig. 5



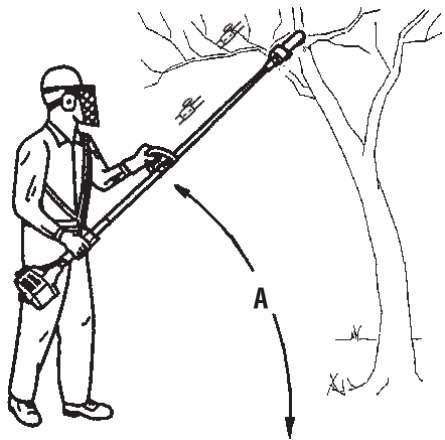
- A - Second cut (deuxième coupe, segundo corte)
- B - Load (charge, carga)
- C - First cut 1/4 diameter (première coupe 1/4 du diamètre, primer corte 1/4 del diámetro)
- D - Final cut (coupe finale, corte final)

Fig. 6



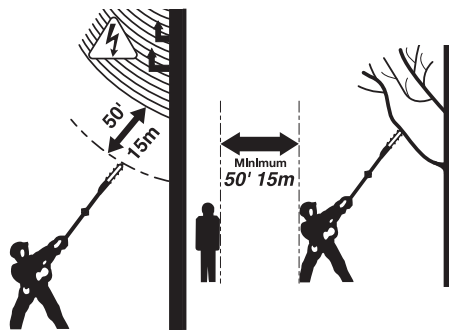
- A - Cutting guide (guide de coupe, guía de corte)

Fig. 7



- A - 60° maximum (60° maximum, 60° máximo)

Fig. 8



- A - Minimum 50' 15m (minimum 50' 15m, mínimo 50' 15m)

Fig. 9

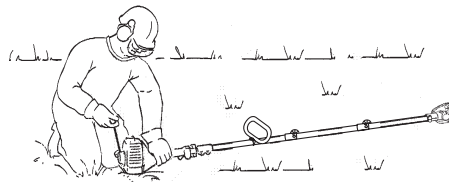
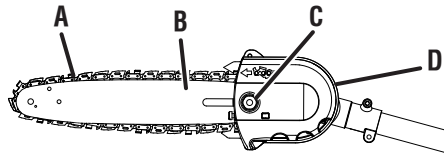
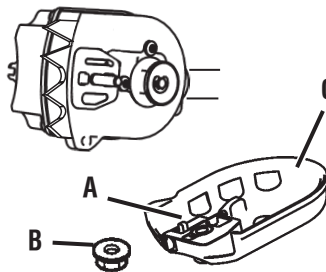


Fig. 10



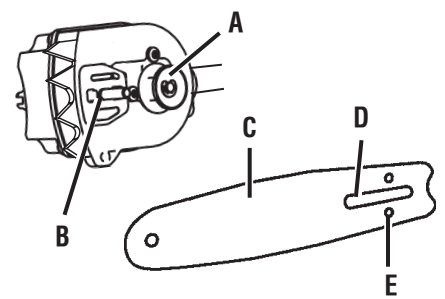
- A - Chain (chaîne, cadena)
- B - Bar (guide, barra)
- C - Bar nut (écrou du guide, tuerca de la barra)
- D - Drivecase cover (carter d'engrenages, tapa de la caja de la transmisión)

Fig. 11



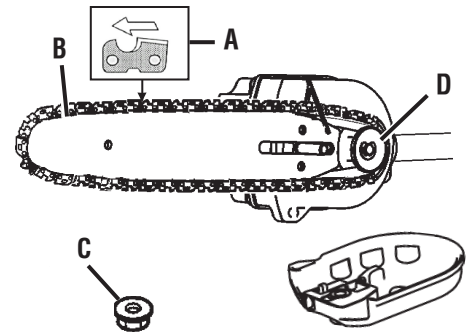
- A - Chain tensioning pin (axe de tension de chaîne, pasador tensor de la cadena)
- B - Bar nut (écrou du guide, tuerca de la barra)
- C - Drivecase cover (carter d'engrenages, tapa de la caja de la transmisión)

Fig. 12



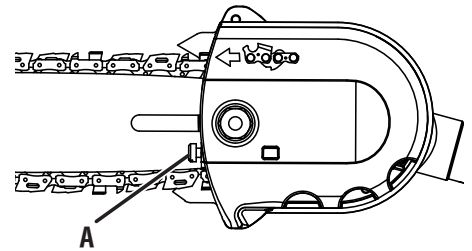
- A - Sprocket (pignon, rueda dentada)
- B - Bar stud (goujon de guide, perno de la barra)
- C - Bar (guide, barra)
- D - Bar stud slot (fente du goujon de guide, ranura del perno en la barra)
- E - Chain tensioning pin hole (trou d'axe de tension de chaîne, orificio del pasador tensor de la cadena)

Fig. 13



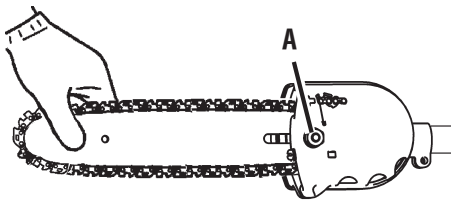
- A - Chain rotation (rotation de la chaîne, rotación de la cadena)
- B - Chain (chaîne, cadena)
- C - Bar nut (écrou du guide, tuerca de la barra)
- D - Sprocket (pignon, rueda dentada)

Fig. 14



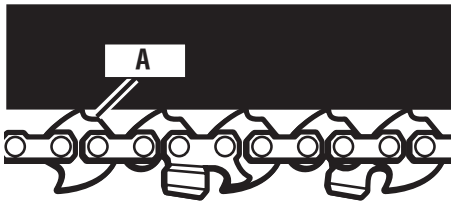
- A - Chain tensioning screw (vis de tension de chaîne, tornillo tensor de la cadena)

Fig. 15



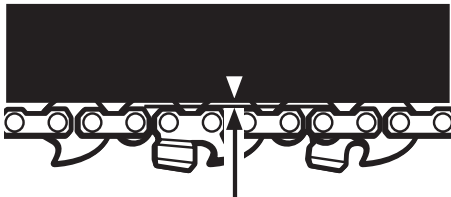
A - Bar nut (écrou du guide, tuerca de la barra)

Fig. 16



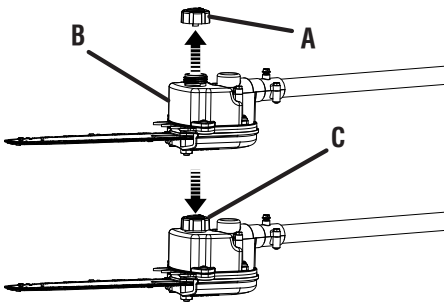
A - Flats (méplats, partes planas)

Fig. 17



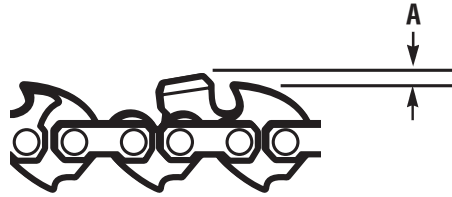
APPROX .050 in. /
ENVIRON 1,25 MM (0,050 PO) /
APROX 1,25 MM (0,050 PULG.)

Fig. 18



A - Remove cap (retirer le bouchon, quite la tapa)
B - Chain oiler tank (réservoir d'huile de chaîne, tanque del lubricador de la cadena)
C - Replace cap (remettre le bouchon en place, vuelva a colocar la tapa)

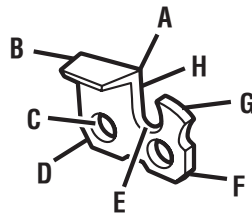
Fig. 19



A - Depth gauge setting, (réglage du limiteur de profondeur, ajuste del calibrador de profundidad)

Fig. 20

PARTS OF A CUTTER / PIÈCES D'UNE DENT / PARTES DE UN DIENTE DE CORTE



A - Cutting corner (coupe du coin, esquina de corte)
B - Top plate (plaquette supérieure, placa superior)
C - Rivet hole (trou de rivet, orificio del remache)
D - Heel (talonnage, talón)
E - Gullet (creux, garganta)
F - Toe (sabot, puntera)
G - Depth gauge (limiteur de profondeur, calibre de profundidad)
H - Side plate (plaque latérale, placa lateral)

Fig. 21

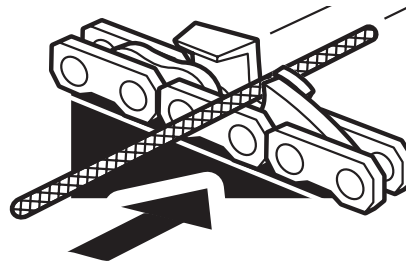


Fig. 22

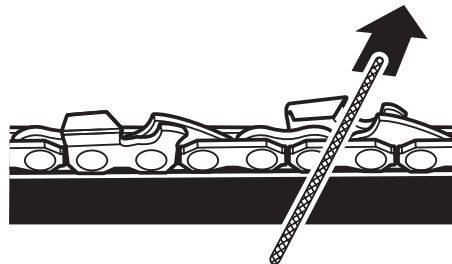
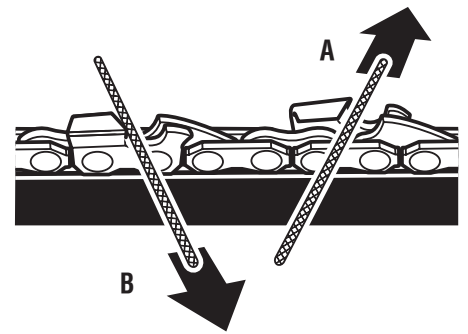
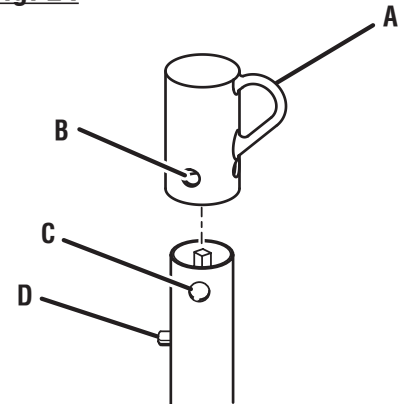


Fig. 23



A - Left hand cutters (dents de gauche, dientes de corte izquierdos)
B - Right hand cutters (dents de droite, dientes de corte derechos)

Fig. 24



A - Hanger cap (capuchon de suspension, tapa de suspensión)
B - Hole (trou, orificio)
C - Secondary hole (trou secondaire, orificio secundario)
D - Button (bouton, botón)

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INTRODUCTION

INTRODUCTION / INTRODUCCIÓN

This product has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

* * *

Ce produit offre de nombreuses fonctions destinées à rendre son utilisation plus plaisante et satisfaisante. Lors de la conception de ce produit, l'accent a été mis sur la sécurité, les performances et la fiabilité, afin d'en faire un outil facile à utiliser et à entretenir.

* * *

Este producto ofrece numerosas características para hacer más agradable y placentero su uso. En el diseño de este producto se ha conferido prioridad a la seguridad, el desempeño y la fiabilidad, por lo cual se facilita su manejo y mantenimiento.

GENERAL SAFETY RULES



WARNING:

Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury.

SAVE THESE INSTRUCTIONS

- Read these instructions and the instructions for the power head thoroughly before using pruner.
- Know the tool. Read and understand the operator's manual and observe the warnings and instruction labels affixed to the tool.
- Do not allow children or untrained individuals to use this unit.
- Always wear eye protection with side shields marked to comply with ANSI Z87.1, along with hearing and head protection when operating this unit.
- Wear heavy long pants, boots, and gloves. Do not wear loose fitting clothing, short pants, jewelry of any kind, sandals, or go barefoot.
- Secure long hair so it is above shoulder level to prevent entanglement in any moving parts.
- Keep all bystanders, children, and pets at least 50 ft. away.
- Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Do not operate in poor lighting.
- Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- Keep all parts of your body away from any moving part.
- Inspect unit before each use for loose fasteners and damaged or missing parts. Correct before using the attachment. Failure to do so can cause serious injury.
- Use only original manufacturer's replacement parts. Failure to do so may cause poor performance, possible injury, and will void your warranty.
- Do not, under any circumstance, use any attachment or accessory on this product, which was not provided with the product, or identified as appropriate for use with this product in the operator's manual.

- Avoid dangerous environments. Do not use the attachment in damp or wet locations. Do not use in rain.
- Use the right attachment. Do not use attachment for any job except that for which it is intended.
- Keep hands away from cutting area. Keep hands away from blades. Do not reach underneath work or around or over the blade while blade is rotating. Do not attempt to remove cut material when blade is moving.
- Blade coasts after being turned off.
- Do not touch areas around the muffler or cylinder of a gas power head. These parts get hot from operation. Contact with hot surfaces could result in possible serious personal injury.
- Always stop the engine or motor and remove the spark plug wire or disconnect from the power supply before making any adjustments or repairs except for carburetor adjustments.

WHEN USING AN ELECTRIC POWER HEAD:

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- Do not allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Turn off all controls before unplugging.
- This appliance is provided with double insulation. Use only identical replacement parts. See Instructions for Servicing of Double-Insulated Appliances.

GENERAL SAFETY RULES

- **SERVICING OF DOUBLE-INSULATED APPLIANCES.** A double-insulated appliance is marked with one or more of the following: The words “DOUBLE INSULATION” or “DOUBLE INSULATED” or the double insulation symbol (square within a square). ☐ In a double-insulated appliance, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-

insulated appliance, nor should a means for grounding be added to the appliance. Servicing a double-insulated appliance requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated appliance must be identical to the parts they replace.




SPECIFIC SAFETY RULES

- Kickback is a dangerous reaction that can lead to serious injury. Kickback may occur when the moving chain contacts an object at the upper portion of the tip of the guide bar or when the wood closes in and pinches the chain in the cut. Contact at the upper portion of the tip of the guide bar can cause the chain to dig into the object and stop the chain for an instant. The result is a lightning fast, reverse reaction which kicks the guide bar up and back toward the operator. If the chain is pinched along the top of the guide bar, the guide bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of tool control which can result in serious injury. Do not rely exclusively upon the safety devices built into the tool. As a pruner user, you should take several steps to keep your cutting jobs free from accident or injury.
 - With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
 - Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, fence, or any other obstruction while you are operating the unit.
 - Always cut with the engine or motor running at full speed. Fully squeeze the trigger and maintain a steady cutting speed.
 - Follow the sharpening and maintenance instructions for the chain.
 - Use only the replacement guide bars and low kickback chains specified for this unit.
 - Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
 - Do not use on a ladder or unstable support. Stable footing on a solid surface enables better control of the tool in unexpected situations.
 - Never let anyone use the tool who has not received adequate instructions in its proper use. This applies to rentals as well as privately owned units and also to the power head it is attached to.
 - To protect yourself from electrocution, do not operate within 50 ft. of overhead electrical lines.
 - To protect yourself from falling branches, do not stand directly under the branch or limb being cut. This unit should not be held at an angle over 60° from ground level.
 - Keep the handles dry, clean, and free of oil or fuel mixture.
 - Before you start the engine or motor, make sure the chain is not contacting any object.
 - Shut off the engine or motor and make sure the cutting attachment has stopped before setting the unit down.
 - **DANGER!** Serious injury or death from electrocution if power lines are contacted. Never use near any electrical source, wires, or powerlines.
 - Wear face shield and hard hat to protect against falling debris. Always have a clear work area and retreat path. Be aware of limb/branch location to avoid falling limbs and debris. Keep bystanders 50 feet away when operating saw.
 - Store Idle Appliance Indoors — When not in use, product should be stored indoors in a dry and high or locked up place—out of the reach of children.
 - Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also to prevent misuse of the product and possible injury.
- NOTE: SEE YOUR POWER HEAD OPERATOR'S MANUAL FOR ADDITIONAL SPECIFIC SAFETY RULES.**










SAVE THESE INSTRUCTIONS

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER:	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING:	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION:	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	CAUTION:	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	EXPLANATION
	Safety Alert Symbol	Indicates a potential personal injury hazard.
	Read Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye, Hearing and Head Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1, as well as hearing and head protection, when operating this equipment.
	Safety Footwear	Wear non-slip safety footwear when using this equipment.
	Gloves	Wear non-slip, heavy-duty protective gloves when handling the pole pruner attachment and the saw chain.
	Moving Parts	Keep hands away from moving parts.
	Kickback	DANGER! Beware of kickback.
	Hot Surfaces	Indicates HOT SURFACES. Keep all body parts away from all hot surfaces.
	Keep Tool Away from Electrical Lines/Keep Bystanders Away	DANGER! Risk of electrocution! Keep tool 50 feet away from electrical lines. Keep all bystanders at least 50 ft. away.

FEATURES

KNOW YOUR PRUNER ATTACHMENT

See Figure 1.

The safe use of this product requires an understanding of the information on the product and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

PRODUCT SPECIFICATIONS

Bar length 10 in.
Weight 4-1/2 lbs.

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully remove the items from the box. Make sure that all items listed in the packing list are included.

WARNING:

Do not use this product if any parts on the Packing List are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1-800-860-4050 for assistance.

PACKING LIST

Ryobi® Expand-It™ Pruner Attachment
Scabbard
Bar and Chain Lubricant
Combination Wrench
Extension Shaft
Shoulder Strap
Strap Hanger
Operator's Manual

WARNING:

If any parts are damaged or missing do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.

WARNING:

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

WARNING:

Do not connect to power head until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

WARNING:

Do not remove the scabbard until the pruner is fully assembled and ready to use. Failure to comply could result in possible serious personal injury.

CONNECTING POWER HEAD TO EXTENSION SHAFT AND PRUNER ATTACHMENT

See Figure 2.

The pruner attachment connects to the power head or, for extra reach, to an extension shaft by means of a coupler device.

WARNING:

Never attach or adjust any attachment while power head is running. Failure to stop the engine or motor may cause serious personal injury.

To install the attachment:

- Remove the spark plug wire or disconnect from the power supply.
- Remove the hanger cap from the attachment shaft.
- Loosen the knob on the coupler of the power head shaft.
- Push in the button located on the shaft of the pruner attachment.

ASSEMBLY

- Align the button with the guide recess on the extension shaft coupler and slide the two shafts together. Rotate extension shaft until button locks into the positioning hole.

NOTE: The attachment should only be operated with the blade in a vertical position. If the button does not release completely in the positioning hole, the shaft is not locked into place. Slightly rotate from side to side until the button is locked into place.

- Tighten the knob securely.
- Repeat previous steps to attach extension shaft to power head.

WARNING:

Be certain the knob is fully tightened before operating equipment; check it periodically for tightness during use to avoid serious injury.

To remove:

- Stop the engine or motor and remove the spark plug wire or disconnect from the power supply.

- Loosen the knob.
- Push in the button and twist the shafts to remove and separate ends.

INSTALLING THE SHOULDER STRAP AND STRAP HANGER

See Figures 3 - 4.

When operating this unit, you must wear a shoulder strap to support the unit. If your unit does not have a strap hanger installed on the power head shaft, use the following instructions to install the hanger.

- Pull strap hanger apart and place over power head end of shaft; position near the upper knob.
- Install bolt and lock nut. Tighten nut securely.

NOTE: Check for tightness before each use to avoid serious injury or product damage.

- Place shoulder strap over your left shoulder and attach shoulder strap clip to strap hanger. Adjust by sliding the front clip up or down.

NOTE: When properly adjusted, the power head should be supported by the shoulder strap about hip level.

OPERATION

WARNING:

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1, as well as hearing and head protection, when operating this equipment. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

APPLICATIONS

You may use this product for the purposes listed below:

- Limbing
- Pruning

PREPARATION FOR CUTTING

- Wear non-slip gloves for maximum grip and protection.
- Maintain a proper grip on the unit whenever the engine or motor is running. Use your right hand to firmly grip the rear handle while your left hand has a firm grip on the front handle.
- Hold unit firmly with both hands. Always keep your left hand on the front handle and your right hand on the rear handle, so your body is to the left of the chain line. Never use a left-handed (cross-handed) grip, or any stance that places your body or arm across the chain line.
- Never stand directly under the limb you are cutting.
- Always wear shoulder strap for increased safety and to support the pruner.
- Be certain the knob is fully tightened before operating equipment; check it periodically for tightness during use to avoid serious injury.

BASIC CUTTING PROCEDURE

See Figures 5 - 6.

Follow these steps to prevent damage to tree or shrub bark. Do not use a back-and-forth sawing motion.

- Fully squeeze the trigger and allow the engine or motor to come to full speed just before entering the cut. Keep the engine or motor at full speed the entire time you are cutting.

OPERATION

- Make a shallow first cut (1/4 of limb diameter) on the underside of the limb close to the main limb or trunk.
- Make a second cut from the top side of the limb outboard from the first cut.
- Make a final cut close to trunk.

NOTE: For second and final cuts (from top of limb or branch), hold front cutting guide against the limb being cut. This will help steady the limb and make it easier to cut. Allow chain to cut for you; exert only light downward pressure. If you force the cut, damage to the bar, chain, or engine or motor can result.

- Release the trigger as soon as the cut is completed, allowing the engine or motor to stop. If you run the pruner at full speed without a cutting load, unnecessary wear or damage can occur to the chain, bar, and engine or motor.

Failure to follow proper cutting procedures will result in the bar and chain binding and becoming pinched or trapped in the limb. If this should happen:

- Stop the engine or motor.
- Remove the spark plug wire or disconnect from the power supply.
- Loosen the knob on the coupler.
- Depress the button on the shaft; twist and pull the shafts to separate the pruner from the power head.
- If the limb can be reached from the ground, lift the limb while holding the attachment. This should release the “pinch” and free the pruner.
- If the pruner is still trapped, call a professional for assistance.
- Check the chain tension frequently when operating the unit. Refer to **Chain Tension** in the *Maintenance* section of this manual.

LIMBING AND PRUNING

See Figures 7 - 8.

This unit is designed for trimming small branches and limbs up to 6 in. in diameter. For best results, observe the following precautions:

- Plan the cut carefully. Be aware of the direction in which the branch will fall.
- Branches may fall in unexpected directions. Do not stand directly under the branch being cut.
- The most typical cutting application is to position the unit at an angle of 60° or less, depending on the specific situation. As the angle of the pruner shaft to ground increases, the difficulty of making the first cut (from the underside of limb) increases.
- Remove long branches in several stages.
- Cut lower branches first to allow the top branches more room to fall.
- Work slowly, keeping both hands on the tool with a firm grip. Maintain secure footing and balance.
- Keep the tree between you and the chain while limbing. Cut from side of tree opposite branch you are cutting.
- Do not cut from a ladder, rooftop, or other unstable support; this is extremely dangerous. Hire a professional for complex cutting situations.
- Do not make the flush cut next to the main limb or trunk until you have cut off the limb further out to reduce the weight. Following proper cutting procedures will prevent stripping the bark from the main member.
- Do not use the pruner for felling or bucking.
- To prevent electrocution, do not operate within 50 ft. of overhead electrical lines.
- Keep bystanders at least 50 ft. away.

POSITION FOR STARTING

See Figure 9.

Lay the pruner on the ground and ensure that no objects or obstructions are in the immediate vicinity. Make sure nothing can come in contact with the bar and chain, including dirt on the ground.

MAINTENANCE

WARNING:

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1, as well as hearing and head protection, when operating this equipment. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

WARNING:

Before inspecting, cleaning, or servicing the unit (except for carburetor adjustments), shut off engine or motor, wait for all moving parts to stop, and disconnect spark plug wire and move it away from spark plug or disconnect from power supply. Failure to follow these instructions can result in serious personal injury or property damage.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken, or destroy plastic, which may result in serious personal injury.

Only the parts shown on the parts list are intended to be repaired or replaced by the customer. All other parts should be replaced at an authorized service center.

WARNING:

To avoid possible serious injury, never touch or adjust the chain while the motor is running. The chain is very sharp; always wear protective gloves when performing maintenance to the chain.

REPLACING THE BAR AND CHAIN

See Figures 10 - 15.

Replacement Bar Part Number: 671834008
Replacement Chain Part Number: 690583003

WARNING:

To avoid possible serious injury, stop engine or motor and remove the spark plug wire or disconnect from power supply before replacing the bar, chain, or performing any maintenance operation.

- Remove the bar nut and drivecase cover.
- The bar contains a bar stud slot that fits over the bar stud.
- The bar also contains a chain tensioning pin hole which fits over the chain tensioning pin.
- Place the bar onto the bar stud so that the chain tensioning pin fits into the chain tensioning pin hole.
- Fit the chain over the sprocket and into the bar groove. The cutters on the top of the bar should face toward the bar tip, in the direction of the chain rotation.
- Replace the drive case cover and reinstall the bar nut. Tighten the bar nut finger tight only; the bar must be free to move for tension adjustment.
- Remove all slack from chain by turning the chain tensioning screw clockwise, assuring that the chain seats into the bar groove during tensioning.
- Lift the tip of the bar up to check for sag. Release the tip of the bar, and turn the chain tensioning screw 1/2 turn clockwise. Repeat this process until sag does not exist.
- Hold the tip of the bar up and tighten the bar nut securely.
- Chain is correctly tensioned when there is no slack on the underside of the bar and the chain is snug, but can be turned by hand without binding.

NOTE: If chain is too tight, it will not rotate. Loosen the bar nut slightly and turn adjusting screw 1/4 turn counterclockwise. Lift the tip of the bar up and retighten bar nut.

WARNING:

Check the chain tension frequently when operating the unit. Never touch or adjust the chain while the engine or motor is running. The chain is very sharp; always wear protective gloves when performing maintenance to the chain.

POWER HEAD IDLE SPEED ADJUSTMENT (GAS POWER HEADS ONLY)

If the chain turns at idle, the idle speed screw needs adjusting on your gas power head engine. Turn the idle speed screw counterclockwise to reduce the idle RPM and stop the chain movement. Refer to your power head Operator's Manual for more details. If the chain still moves at idle speed, contact a service dealer for adjustment and discontinue use until the repair is made.

MAINTENANCE

WARNING:

The chain should never turn at idle when using a gas power head. Turn the idle speed screw “T” counter-clockwise to reduce the idle RPM and stop the chain, or contact a service dealer for adjustment and discontinue use until the repair is made. Serious personal injury may result from the chain turning at idle.

CHAIN TENSION

See Figures 16 - 17.

- Stop the engine or motor and remove the spark plug wire or disconnect from power supply before setting the chain tension. Make sure the guide bar nut is loose to finger tight, turn the chain tensioning screw clockwise to tension the chain. Refer to **Replacing the Bar and Chain** for additional information.

A cold chain is correctly tensioned when there is no slack on the underside of the guide bar and the chain is snug, but can be turned by hand without binding.

- The chain must be re-tensioned whenever the flats on the drive links hang out of the bar groove.
- During normal operation, the temperature of the chain will increase. The drive links of a correctly tensioned warm chain will hang approximately .050 in. (1.25 mm) out of the bar groove.

NOTE: New chains tend to stretch; check chain tension frequently and tension as required.

CAUTION:

A chain tensioned while warm may be too tight upon cooling. Check the “cold tension” before next use.

CHAIN OILER

See Figure 18.

- Use Premium Bar and Chain Lubricant. It is designed for chains and chain oilers and is formulated to perform over a wide temperature range with no dilution required.
- Remove the cap and carefully pour approximately 8 oz. of the bar and chain lubricant into the chain oiler tank.
- Replace the cap and tighten securely.
- Check and refill the chain oiler tank every hour when using an electric power head or every time the engine is fueled when using a gas power head.

NOTE: Do not use dirty, used, or otherwise contaminated lubricants. Damage may occur to the oil pump, bar, or chain.

CHAIN MAINTENANCE

See Figure 19.

WARNING:

The chain is very sharp; always wear protective gloves when performing maintenance to the chain.

Use only the replacement low kickback chain specified for this unit.

For smooth and fast cutting, the chain needs to be maintained properly. The chain requires sharpening when the wood chips are small and powdery, the chain must be forced through the wood during cutting, or the chain cuts to one side. During maintenance of the chain, consider the following:

- Improper filing angle of the side plate can increase the risk of a severe kickback.
- Depth gauge (or raker clearance) setting determines the height the cutter enters the wood and the size of the wood chip that is removed. Too much clearance increases the potential for kickback. Too little clearance decreases the size of the wood chip thus decreasing the chain’s cutting ability.
- If cutter teeth have hit hard objects such as nails and stones, or have been abraded by mud or sand on the wood, have service dealer sharpen chain.

HOW TO SHARPEN THE CUTTERS

See Figures 20 - 23.

WARNING:

Improper chain sharpening increases the potential of kickback. Failure to replace or repair damaged chain can cause serious injury.

Be careful to file all cutters to the specified angles and to the same length, as fast cutting can be obtained only when all cutters are uniform.

- Tighten the chain tension enough that the chain does not wobble. Do all of your filing at the mid-point of the bar. Wear gloves for protection.
- Use a 5/32 in. diameter round file and holder.
- Keep the file level with the top plate of the tooth. Do not let the file dip or rock.
- Using light but firm pressure, stroke towards the front corner of the tooth. Lift file away from the steel on each return stroke.
- Put a few firm strokes on every tooth. File all left hand cutters in one direction. Then move to the other side and file the right hand cutters in the opposite direction. Occasionally remove filings from the file with a wire brush.

MAINTENANCE

CAUTION:

Dull or improperly sharpened chain can cause excessive engine or motor speed during cutting, which may result in severe engine or motor damage.

ATTACHING THE STORAGE HANGER

See Figure 24.

There are two ways to hang the attachment for storage.

- To use the hanger cap, push in the button and place the hanger cap over the end of the attachment shaft. Slightly rotate the cap from side to side until the button locks into place.

- The secondary hole in the attachment shaft can be used for hanging purposes as well.

STORING THE ATTACHMENT

- Clean the attachment thoroughly and lubricate before storing.
- Store the attachment indoors in a dry, well-ventilated place that is inaccessible to children.
- Keep away from corrosive agents such as garden chemicals and de-icing salts.
- Always place the scabbard on the cutting blade before storing or when the attachment is not in use.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Bar and chain running hot and smoking.	Check chain tension for overtight condition.	Tension chain. Refer to Chain Tension earlier in this manual.
	Chain oil tank empty.	Check oil tank.
	Chain tension too tight.	Retention chain, Refer to Chain Tension earlier in this manual.
	Check guide bar and chain assembly.	Refer to Replacing the Bar and Chain earlier in this manual.
	Check guide bar and chain for damage.	Inspect guide bar and chain for damage.



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For any questions about operating or maintaining your product, call the Ryobi Help Line!

To register your Ryobi product by regular mail, please print the following information on a 3 in. x 5 in. card or standard postcard: your name, mailing address, phone numbers, email address, Ryobi product(s) purchased with item number from package, and serial number for each product. Mail the card to: Techtronic Industries North America, Inc., Attn. Ryobi Registration, 1428 Pearman Dairy Road, Anderson, SC 29625. To receive information on our company and products, please include the following statement on your registration card: "Send me information on your products and company using the contact information I am providing with this product registration."

WARRANTY

LIMITED WARRANTY STATEMENT

Techtronic Industries North America, Inc., warrants to the original retail purchaser that this RYOBI® brand outdoor product is free from defect in material and workmanship and agrees to repair or replace, at Techtronic Industries North America, Inc.'s, discretion, any defective product free of charge within these time periods from the date of purchase.

- Three years if the product is used for personal, family or household use;
- 90 days, if used for any other purpose, such as commercial or rental.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of Techtronic Industries North America, Inc. to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized service center for RYOBI® brand outdoor products (Authorized Ryobi Service Center).

The product, including any defective part, must be returned to an authorized Ryobi service center within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Techtronic Industries North America, Inc.'s, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any RYOBI® brand outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized service dealer.

This warranty is limited to ninety (90) days from the date of original retail purchase for any RYOBI® brand outdoor product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the RYOBI® brand outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover:

- A. Tune-ups – Spark Plugs, Carburetor, Carburetor Adjustments, Ignition, Filters
- B. Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Starter Pulleys, Starter Ropes, Drive Belts, Tines, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains

Techtronic Industries North America, Inc., reserves the right to change or improve the design of any RYOBI® brand outdoor product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE THREE-YEAR OR NINETY-DAY WARRANTY PERIOD. TECHTRONIC INDUSTRIES NORTH AMERICA, INC.'S, OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND TECHTRONIC INDUSTRIES NORTH AMERICA, INC., DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN AUTHORIZED RYOBI SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all RYOBI® brand outdoor products manufactured by or for Techtronic Industries North America, Inc., and sold in the United States and Canada.

To locate your nearest Authorized Ryobi Service Center, dial 1-800-860-4050.



EXPAND-IT
ATTACHMENTS



OPERATOR'S MANUAL

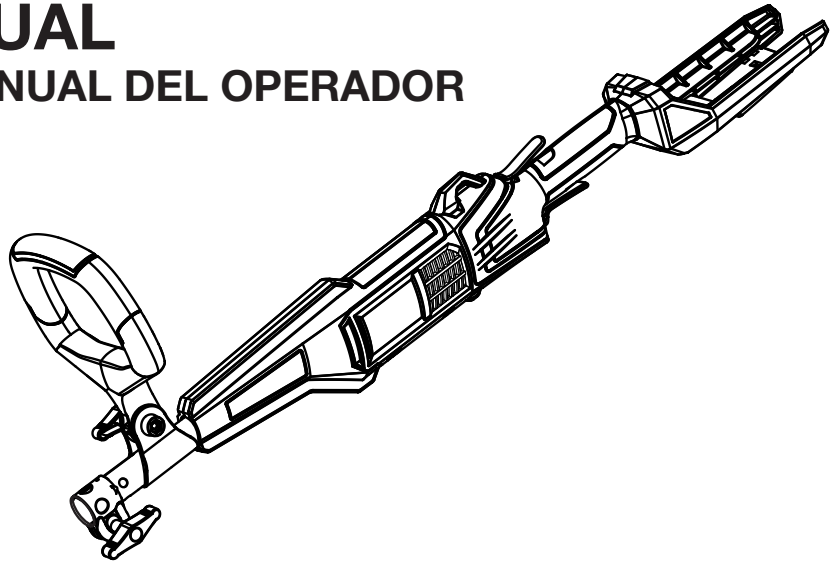
MANUEL D'UTILISATION/MANUAL DEL OPERADOR

40 VOLT POWER HEAD

40V BLOC MOTEUR
40V CABEZAL MOTOR

RY40002

ALL VERSIONS
TOUTES LES VERSIONS
TODAS LAS VERSIONES



BATTERIES AND CHARGERS SOLD SEPARATELY
PILES ET CHARGEUR VENDUS SÉPARÉMENT
LAS BATERÍAS Y EL CARGADOR SE VENDEN POR SEPARADO

Your power head has been engineered and manufactured to our high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

⚠ WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

SAVE THIS MANUAL FOR FUTURE REFERENCE

Le bloc-moteur a été conçue et fabriquée conformément à nos strictes normes de fiabilité, simplicité d'emploi et sécurité d'utilisation. Correctement entretenue, elle vous donnera des années de fonctionnement robuste et sans problème.

⚠ AVERTISSEMENT : Pour réduire les risques de blessures, l'utilisateur doit lire et veiller à bien comprendre le manuel d'utilisation avant d'employer ce produit.

Merci de votre achat.

Su cabezal motor ha sido diseñada y fabricada de conformidad con las estrictas normas para brindar fiabilidad, facilidad de uso y seguridad para el operador. Con el debido cuidado, le brindará muchos años de sólido y eficiente funcionamiento.

⚠ ADVERTENCIA: Para reducir el riesgo de lesiones, el usuario debe leer y comprender el manual del operador antes de usar este producto.

Le agradecemos su compra.

**CONSERVER CE MANUEL POUR
FUTURE RÉFÉRENCE**

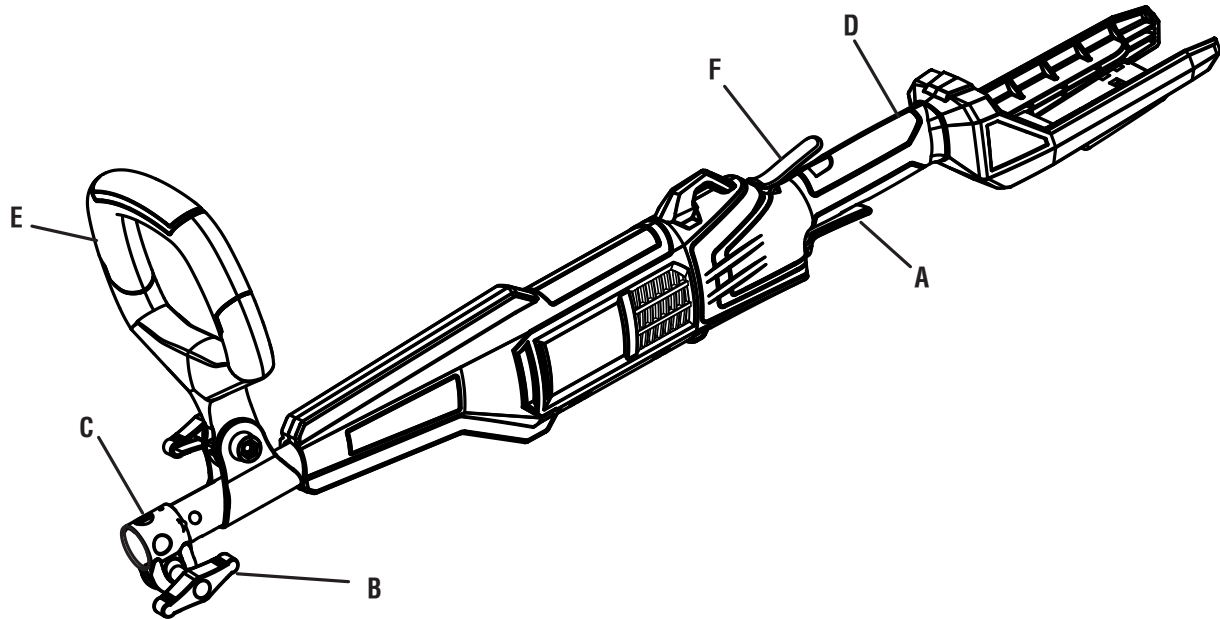
**GUARDE ESTE MANUAL PARA
FUTURAS CONSULTAS**

See this fold-out section for all the figures referenced in the operator's manual.

Voir que cette section d'encart pour toutes les figures a adressé dans le manuel d'utilisation.

Vea esta sección de la página desplegable para todas las figuras mencionó en el manual del operador.

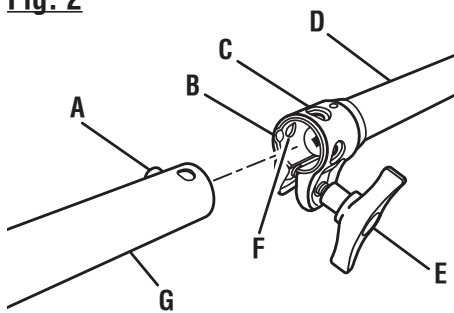
Fig. 1



A - Switch trigger (gâchette, gatillo del interruptor)
 B - Knob (bouton, perilla)
 C - Coupler (coupleur, acoplador)
 D - Rear handle (poignée arrière, mango trasero)

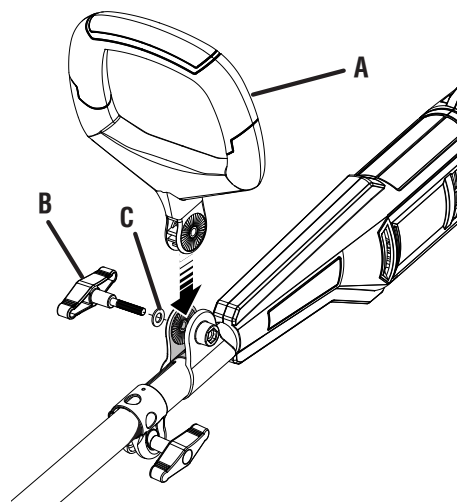
E - Adjustable front handle (poignée avant réglable, mango delantero ajustable)
 F - Trigger lock-out (gâchette avec verrou, gatillo con seguro)

Fig. 2



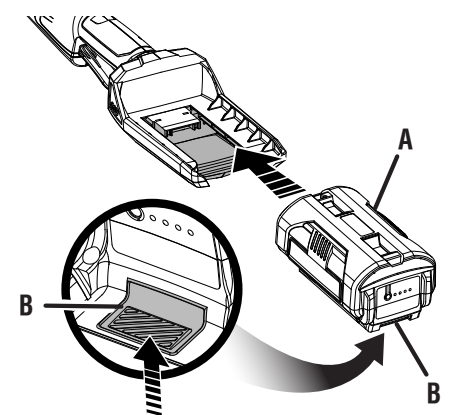
A - Button (bouton, botón)
 B - Guide recess (logement guide, hueco guía)
 C - Coupler (coupleur, acoplador)
 D - Power head shaft (arbre du bloc moteur, eje del cabezal motor)
 E - Knob (bouton, perilla)
 F - Positioning hole (trou de positionnement, orificio de posicionamiento)
 G - Attachment shaft (arbre d'accessoire, eje del aditamento)

Fig. 3



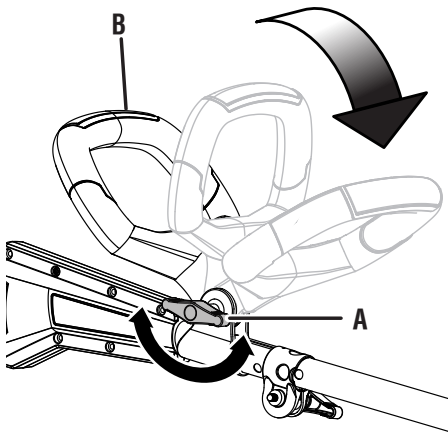
A - Front handle (poignée avant, mango delantero)
 B - Wing bolt (boulon à oreilles, perno de mariposa)
 C - Washer (rondelle, arandela)

Fig. 4



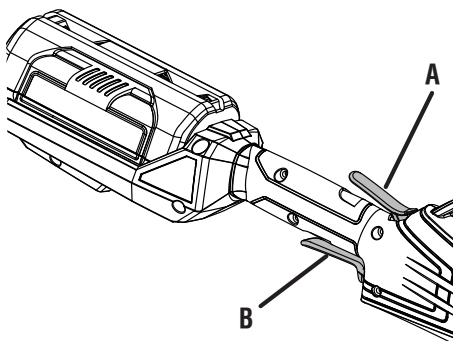
A - Battery pack (bloc-piles, paquete de baterías)
 B - Latch (loquet, pestillo)

Fig. 5



A - Knob (bouton, perilla)
B - Adjustable front handle (poignée avant réglable, mango delantero ajustable)

Fig. 6



A - Trigger lock-out (gâchette avec verrou, gatillo con seguro)
B - Switch trigger (gâchette, gatillo del interruptor)

Fig. 7

**PROPER EDGER ATTACHMENT
OPERATING POSITION**
**ACCESSOIRE COUPE-BORDURES
POSITION DE TRAVAIL**
**POSICIÓN CORRECTA PARA EL
ACCESORIO PARA CORTAR BORDES**

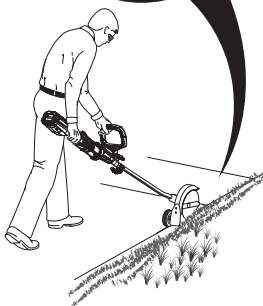
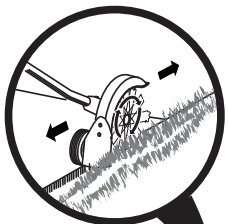


Fig. 8

**PROPER BLOWER ATTACHMENT
OPERATING POSITION**
**ACCESSOIRE SOUFFLANTE
POSITION DE TRAVAIL**
**POSICIÓN CORRECTA PARA EL
MANEJO DE ADITAMENTO PARA SOPLADOR**



Fig. 9

**PROPER STRAIGHT SHAFT TRIMMER
ATTACHMENT OPERATING POSITION**
**ACCESSOIRE TAILLE-BORDURES À ARBRE DROIT
POSITION DE TRAVAIL**
**POSICIÓN CORRECTA PARA EL MANEJO DE ADITA-
MENTO PARA RECORTADORA DE EJE RECTO**



Fig. 10

**PROPER CURVED SHAFT TRIMMER
ATTACHMENT OPERATING POSITION**
**ACCESSOIRE TAILLE-BORDURES À ARBRE
COURBÉE POSITION DE TRAVAIL**
**POSICIÓN CORRECTA PARA EL MANEJO DE ADITA-
MENTO PARA RECORTADORA DE EJE CURVO**



Fig. 11

**PROPER CULTIVATOR ATTACHMENT
OPERATING POSITION**
ACCESSOIRE CULTIVATEUR POSITION DE TRAVAIL
**POSICIÓN CORRECTA PARA EL
MANEJO DE ADITAMENTO PARA CULTIVAR**



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INTRODUCTION

INTRODUCTION / INTRODUCCIÓN

This product has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

* * *

Ce produit offre de nombreuses fonctions destinées à rendre son utilisation plus plaisante et satisfaisante. Lors de la conception de ce produit, l'accent a été mis sur la sécurité, les performances et la fiabilité, afin d'en faire un outil facile à utiliser et à entretenir.

* * *

Este producto ofrece numerosas características para hacer más agradable y placentero su uso. En el diseño de este producto se ha conferido prioridad a la seguridad, el desempeño y la fiabilidad, por lo cual se facilita su manejo y mantenimiento.

IMPORTANT SAFETY INSTRUCTIONS

WARNING!

When using electric gardening appliances, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

READ ALL INSTRUCTIONS

- For safe operation, read and understand all instructions before using this product. Follow all safety instructions. Failure to follow all safety instructions listed below, can result in serious personal injury.
- Do not allow children or untrained individuals to use this unit.
- Check the work area before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in the machine.
- Always wear eye protection with side shields marked to comply with ANSI Z87.1. Following this rule will reduce the risk of serious personal injury.
- Use Safety Glasses – Always use face or dust mask if operation is dusty.
- Protect your lungs. Wear a face or dust mask if the operation is dusty. Following this rule will reduce the risk of serious personal injury.
- Dress Properly – Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear heavy, long pants, long sleeves, boots, and gloves. Do not wear loose fitting clothing, short pants, sandals, or go barefoot. Do not wear loose clothing or jewelry. They can be caught in moving parts. Secure long hair above shoulder level to prevent entanglement in moving parts.
- Keep children away – Keep all bystanders, children, and pets at least 50 ft. away.
- Stay alert – Watch what you are doing. Use common sense. Do not operate this unit when you are tired, ill, upset, or under the influence of alcohol, drugs, or medication.
- Do not operate in poor lighting.
- Keep all parts of your body away from any moving part.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Avoid Dangerous Environments – Don't expose appliance to rain or wet conditions. Water entering an appliance will increase the risk of electric shock.
- Use Right Appliance – Do not use appliance for any job except that for which it is intended. Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- Don't Force Appliance – It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
- Do not operate the equipment while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces.
- Do not overreach – Keep firm footing and balance. Overreaching can result in loss of balance.
- Avoid accidental starting – Be sure switch trigger is in the locked or off position before inserting battery pack. Carrying tools with your finger on the switch trigger or inserting the battery pack into a tool with the switch on invites accidents.
- Do not use tool if switch trigger does not turn it on or off. Any tool that cannot be controlled with the switch trigger is dangerous and must be repaired.
- Disconnect power head – Disconnect battery pack from the appliance before storing, servicing, or changing accessories such as cutting line. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Use only identical manufacturer's replacement parts and accessories. Use of any other parts may create a hazard or cause product damage.
- Maintain appliance with care – Replace string head if cracked, chipped, or damaged in any way. Be sure the string head is properly installed and securely fastened. Failure to do so can cause serious injury. Follow instructions for lubrication and changing accessories. Inspect charger cord periodically and, if damaged, have it replaced. Keep power head handles dry, clean, and free from grease and oil.
- Check Damaged Parts – Before further use of the appliance, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may effect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.
- Keep hands and feet away from cutting area.
- Make sure all guards, straps, deflectors and handles are properly and securely attached.
- Use only the manufacturer's replacement string in the cutting head when using a string trimmer attachment. Do not use any other cutting attachment, for example, metal wire, rope, or the like. To install any other brand of




IMPORTANT SAFETY INSTRUCTIONS

- cutting head to the string trimmer attachment can result in serious personal injury.
- Never operate unit without the grass deflector in place and in good condition.
 - Maintain a firm grip on both handles while trimming. Keep string head below waist level. Never cut with the string head located over 30 in. or more above the ground.
 - Store idle appliances indoors - When not in use, power head and attachments should be stored indoors in a dry, locked place out of the reach of children.
 - Never use flailing devices, wire or rope on any attachment.
 - Inspect area to be cut. Remove objects (rocks, broken glass, nails, wire, string, etc.) which can be thrown or become entangled in cutting head.
 - Keep the air vents clean and free of debris to avoid overheating the motor. Clean after each use.
 - Stop the unit and disconnect the power source when not in use. Carry the unit with the motor stopped.
 - Store out of the reach of children.
 - Do not hang unit so that the switch trigger is depressed.
 - Battery tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your battery tool or when changing accessories. Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
 - Do not charge battery tool in rain, or damp or wet location. Following this rule will reduce the risk of electric shock.
 - Do not use battery-operated appliance in rain.
 - Do not grasp the exposed cutting blades or cutting edges when picking up or holding the appliance.
 - Keep hands away from blades.
 - Do not allow power head to be used as a toy. Close attention is necessary when used by or near children.
 - Do not handle charger, including charger plug, and charger terminals with wet hands.
 - Use extra care when cleaning on stairs.
 - Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
 - Remove or disconnect battery before servicing, cleaning or removing material from the gardening appliance.
 - Use battery only with charger listed. For use with 40V lithium-ion battery packs. See Tool/Appliance/Battery Pack/Charger Correlation Supplement 988000-842.
 - Do not dispose of the batteries in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
 - Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
 - Do not place battery tools or their batteries near fire or heat. This will reduce the risk of explosion and possibly injury.
 - Batteries can explode in the presence of a source of ignition, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemicals. If exposed, flush with water immediately.
 - Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
 - Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
 - For best results, your battery tool should be charged in a location where the temperature is more than 50°F but less than 100°F. To reduce the risk of serious personal injury, do not store outside or in vehicles.
 - Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
 - Save these instructions. Refer to them frequently and use them to instruct others who may use this power tool. If you loan someone this power tool, loan them these instructions also.









ADDITIONAL SPECIFIC SAFETY RULES CAN BE FOUND IN THE APPLICABLE ATTACHMENT'S OPERATOR'S MANUAL

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	DANGER:	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING:	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION:	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	NOTICE:	(Without Safety Alert Symbol) Indicates important information not related to an injury hazard, such as a situation that may result in property damage.

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates a potential personal injury hazard.
	Read Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Keep Bystanders Away	Keep all bystanders at least 50 ft. away.
	Ricochet	Thrown objects can ricochet and result in personal injury or property damage.
	No Blade	Do not install or use any type of blade on a product displaying this symbol.
	Recycle Symbol	This product uses lithium-ion (Li-ion) batteries. Local, state, or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.
—	Direct Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute
V	Volts	Voltage
Hz	Hertz	Frequency (cycles per second)
min	Minutes	Time

FEATURES

KNOW YOUR POWER HEAD

See Figure 1.

The safe use of this product requires an understanding of the information on the tool and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

ADJUSTABLE FRONT HANDLE

The front handle assembly can be adjusted for ease of operation and to help prevent loss of control.

HANDLE OVERMOLD

Handle overmold provides added user comfort.

TRIGGER LOCK-OUT

The trigger lock-out prevents accidental starting.

VARIABLE SPEED SWITCH TRIGGER

This tool has a variable speed switch that delivers higher speed with increased trigger pressure. Speed is controlled by the amount of switch trigger depression.

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.



WARNING:

Do not use this product if any parts on the Packing List are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1-800-860-4050 for assistance.

PACKING LIST

Power Head

Front Handle

Operator's Manual



WARNING:

If any parts are damaged or missing do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.



WARNING:

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.



WARNING:

To prevent accidental starting that could cause serious personal injury, always remove the battery pack from the product when assembling parts.

ASSEMBLY

INSTALLING AN ATTACHMENT TO THE POWER HEAD

See Figure 2.

WARNING:

Read and understand entire Operator's Manual for each optional attachment used on this power head and follow all warnings and instructions. Failure to follow all instructions could result in electric shock, fire and/or serious personal injury.

WARNING:

This 40 V power head is designed to be used only with the attachment models that are specified in this Operator's Manual. It is not designed to be used with brush cutters or other attachment models. Use of other attachments could cause serious personal injuries or property damage.

WARNING:

Never install, remove, or adjust any attachment while power head is running. Failure to stop the motor can cause serious personal injury. Never operate power head without an attachment.

This 40 V power head may be used with only the following Ryobi Expand-It attachments:

- RY15518 Edger
- RY15519 Blower
- RY15523 and RY15523A Straight Shaft String Trimmer
- RY15525 Curved Shaft String Trimmer
- RY15550 Cultivator

The attachment connects to the power head by means of a coupler device.

- Stop the motor and remove the battery pack.
- Loosen the knob on the coupler of the power head shaft and remove the end cap from the attachment.
- Push in the button located on the attachment shaft. Align the button with the guide recess on the power head coupler and slide the two shafts together. Rotate the attachment shaft until the button locks into the positioning hole.

NOTE: If the button does not release completely in the positioning hole, the shafts are not locked into place. Slightly rotate from side to side until the button is locked into place.

- Tighten the knob securely.

WARNING:

Be certain the knob is fully tightened before operating equipment; check it periodically for tightness during use to avoid serious personal injury.

REMOVING THE ATTACHMENT FROM THE POWER HEAD

- Stop the motor and remove the battery pack.
- Loosen the knob.
- Push in the button and twist the shafts to remove and separate ends.

ATTACHING THE FRONT HANDLE

See Figure 3.

- Loosen and remove the wing bolt and washer from the handle.
- Install the handle on the power head shaft in the area indicated by the illustration.
- Adjust handle up or down, if necessary, to desired operating position.
- Reinstall the washer and wing bolt. Tighten wing bolt to secure.

OPERATION

WARNING:

Read and understand entire Operator's Manual for each optional attachment used on this power head and follow all warnings and instructions. Failure to follow all instructions could result in electric shock, fire and/or serious personal injury.

WARNING:

Do not allow familiarity with products to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1. Hearing and/or head protection may also be required depending on the type of attachment used and as prescribed in the attachment's Operator's Manual. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

This product will accept Ryobi 40 V lithium-ion battery packs only.

For complete charging instructions, refer to the Operator's Manuals for your Ryobi battery pack and charger models.

WARNING:

Always remove battery pack from your tool when you are assembling parts, making adjustments, cleaning, or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.

INSTALLING/REMOVING BATTERY PACK

See Figure 4.

To install battery pack:

- Place the battery pack in the power head. Align raised ribs on battery pack with grooves in the power head's battery port.

WARNING:

Make sure the latch on the bottom of the battery pack snaps in place and the battery pack is fully seated and secure in the power head battery port before beginning operation. Failure to securely seat the battery pack could cause the battery pack to fall out, resulting in serious personal injury.

To remove battery pack:

- Press and hold the battery latch button at the bottom of the battery pack.
- Remove battery pack from the power head.

WARNING:

To avoid serious personal injury, always remove the battery pack and keep hands clear of the trigger lock-out when carrying or transporting the tool.

ADJUSTING THE FRONT HANDLE

See Figure 5.

The angle of the front handle can be adjusted 180°.

- Remove the battery pack.
- Set the power head on a flat surface and turn the knob counterclockwise to loosen the handle.
- Adjust the handle as desired.
- Turn the knob clockwise until the handle is securely tightened before reinstalling the battery pack.

STARTING/STOPPING THE POWER HEAD

See Figure 6.

To start:

- Press and hold the trigger lock-out.
- Depress the switch trigger.

To stop:

- Release the switch trigger to stop the power head.
- Upon release of the switch trigger, the trigger lock-out will automatically reset to the locked position.

OPERATING THE POWER HEAD

See Figures 7 - 11.

Hold the power head with your right hand on the rear handle and your left hand on the front handle. Keep a firm grip with both hands while in operation. Power head should be held at a comfortable position with the rear handle about hip height.

Always operate power head with switch trigger completely depressed. If debris becomes wrapped around the attachment, **RELEASE THE SWITCH TRIGGER**, remove the battery pack, and remove the debris.

OPERATION

WARNING:

Always hold the power head away from the body keeping clearance between the body and the tool. Any contact with an attachment cutting head can result in burns and/or other serious personal injury.

WARNING:

Extreme care must be taken when using a blade attachment to ensure safe operation. Read the safety information for safe operation when using a blade attachment and refer to the safety rules and instructions in your attachment manual. Never use a brush cutter attachment with this power head. Improper operation of a blade or any attachment could result in serious injury.

MAINTENANCE

WARNING:

When servicing, use only identical replacement parts. Use of any other parts can create a hazard or cause product damage.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1, along with hearing protection. Head protection may also be required depending on the type of attachment used and as prescribed in the attachment's Operator's Manual. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

WARNING:

To avoid serious personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.

WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which can result in serious personal injury.

Only the parts shown on the parts list are intended to be repaired or replaced by the customer. All other parts should be replaced at an Authorized Service Center.

CLEANING THE POWER HEAD

- Stop the motor and remove the battery pack.
- Clean dirt and debris from the power head using a damp cloth with a mild detergent.

NOTICE:

Do not use any strong detergents on the plastic housing or the handle. They can be damaged by certain aromatic oils such as pine and lemon, and by solvents such as kerosene.

STORING THE POWER HEAD

- Remove the battery pack from the power head before storing.
- Clean all foreign material from the power head.
- Store it in a place that is inaccessible to children.
- Keep away from corrosive agents such as garden chemicals and de-icing salts.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor fails to start when switch trigger is depressed	Battery is not secure.	To secure the battery pack, make sure the latch on the bottom of the battery pack is snapped into place.
	Battery is not charged.	Charge the battery pack according to the instructions included with your model.

WARRANTY

LIMITED WARRANTY STATEMENT

Techtronic Industries North America, Inc., warrants to the original retail purchaser that this RYOBI® brand outdoor product is free from defect in material and workmanship and agrees to repair or replace, at Techtronic Industries North America, Inc.'s, discretion, any defective product free of charge within these time periods from the date of purchase.

- Three years if the product is used for personal, family or household use;
- 90 days, if used for any other purpose, such as commercial or rental.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of Techtronic Industries North America, Inc. to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized service center for RYOBI® brand outdoor products (Authorized Ryobi Service Center).

The product, including any defective part, must be returned to an authorized Ryobi service center within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Techtronic Industries North America, Inc.'s, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any RYOBI® brand outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized service dealer.

This warranty is limited to ninety (90) days from the date of original retail purchase for any RYOBI® brand outdoor product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the RYOBI® brand outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover:

- A. Tune-ups – Spark Plugs, Carburetor, Carburetor Adjustments, Ignition, Filters
- B. Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Starter Pulleys, Starter Ropes, Drive Belts, Tines, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains

Techtronic Industries North America, Inc., reserves the right to change or improve the design of any RYOBI® brand outdoor product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE THREE-YEAR OR NINETY-DAY WARRANTY PERIOD. TECHTRONIC INDUSTRIES NORTH AMERICA, INC.'S, OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND TECHTRONIC INDUSTRIES NORTH AMERICA, INC., DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN AUTHORIZED RYOBI SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all RYOBI® brand outdoor products manufactured by or for Techtronic Industries North America, Inc., and sold in the United States and Canada.

To locate your nearest Authorized Ryobi Service Center, dial 1-800-860-4050.