

INTRODUCTION

THANK YOU

Thank you for buying this quality product. This modern outdoor power tool will provide many hours of useful service. You will find it to be a great labor-saving device. This operator's manual provides you with easy-to-understand operating instructions. Read the whole manual and follow all the instructions to keep your new outdoor power tool in top operating condition.

PRODUCT REFERENCES, ILLUSTRATIONS AND SPECIFICATIONS

All information, illustrations and specifications in this manual are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

Copyright[©] 2000 Ryobi Outdoor Products, Inc. All Rights Reserved.

Click-Link® is a registered trademark of Ryobi Outdoor Products.

SpeedSpool® is a registered trademark of Ryobi Outdoor Products.

SERVICE INFORMATION

Service on this unit both within and after the warranty period should be performed only by an authorized and approved service dealer. Dial:

- 1-800-345-8746 or www.rvobi.com on the world wide web for authorized service dealers in the United States
- Or
- 1-800-668-1238 in Canada to obtain the listing of the authorized service dealer nearest you.

DO NOT RETURN THE UNIT TO THE RETAILER. NOTE: PROOF OF PURCHASE WILL BE REQUIRED FOR WARRANTY SERVICE.

Make sure this manual is carefully read and understood before starting or operating this equipment.

THIS PRODUCT IS COVERED BY ONE OR MORE US PATENTS, OTHER PATENTS PENDING.

A complete parts list can be viewed and printed by going to our web site, www.ryobi.com. Or, you can request a copy by calling 1-800-345-TRIM (1-800-345-8746). Please have the unit model and serial number when calling.

TABLE OF CONTENTS I. 11. VI. Operating Instructions 11-13 VIII. Troubleshooting Chart 21 IX. Specifications 22

CONTENTS OF CARTON

This unit should consist of the following:

Model 725r Trimmer with SpeedSpool® **Bump Head Cutting Attachment**

Warranty 24

- ∆ J-Handle and Hardware
- Δ Cutting Attachment Shield with Hardware
- ۰ LE720r Edger Add-On
- Locking Rod
- Bottle of 2-Cycle Oil ٠
- **Operator's Manual**
- **Product Registration Card**
- Δ This item will either be installed on the unit or in the hardware pack

CALIFORNIA PROPOSITION 65 WARNING:

WARNING

THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

SPARK ARRESTOR

NOTE: For users on U.S. Forest Land and in the states of California, Maine, Oregon and Washington. All U.S. Forest Land and the state of California (Public Resources Codes 4442 and 4443), Oregon and Washington require, by law that certain internal combustion engines operated on forest brush and/or grass-covered areas be equipped with a spark arrestor, maintained in effective working order, or the engine be constructed, equipped and maintained for the prevention of fire. Check with your state or local authorities for regulations pertaining to these requirements. Failure to follow these requirements could subject you to liability or a fine. This unit is factory equipped with a spark arrestor. If it requires replacement, ask your LOCAL SERVICE dealer to install the Accessory Part #182747 Spark Arrestor Kit.

WARNING!

Read the Operator's Manual(s) and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.

FOR QUESTIONS, CALL 1-800-345-8746 IN U.S. OR 1-800-668-1238 in CANADA

RULES FOR SAFE OPERATION

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL MEANING

SAFETY ALERT SYMBOL: Indicates danger, warning, or caution. Attention is required in order to avoid serious personal injury. May be used in conjunction with other symbols or pictographs.

NOTE: Advises you of information or instructions vital to the operation or maintenance of the equipment.



DANGER: Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.



WARNING: Failure to obey a safety warning can result in injury to yourself and others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.



CAUTION: Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock, and personal injury.

• IMPORTANT SAFETY INFORMATION •

READ ALL INSTRUCTIONS

BEFORE OPERATING

- Read the instructions carefully. Be familiar with the controls and proper use of the unit.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication.
- Children and teens under the age of 15 must not use the unit, except for teens guided by an adult.
- Inspect the unit before use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and secure. Replace cutting attachment parts that are cracked, chipped, or damaged in any way. Make sure the cutting attachment is properly installed and securely fastened. Be sure the cutting attachment shield is properly attached, and positioned as recommended. Failure to so can result in personal injury to the operator and bystanders, as well as damage to the unit.
- Use only 0.080 inch (2.03 mm) diameter genuine Ryobi replacement line. Never use metal-reinforced line, wire, chain, or rope, etc. These can break off and become a dangerous projectile.
- Be aware of the risk of injury to the head, hands and feet.
- Clear the area to be cut before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in the cutting attachment. Clear the area of children, bystanders, and pets. At a minimum, keep all children, bystanders and pets outside a 50 feet (15 m) radius; there still may be a risk to bystanders from thrown objects. Bystanders should wear eye protection. If you are approached, stop the engine and cutting attachment immediately.
- Squeeze the throttle control and check that it returns automatically to the idle position. Make all adjustments or repairs before using unit.
- This unit was not designed to be used as a brushcutter. Do not attach or operate this unit with any type of brushcutting blade or brushcutting attachment.

SAFETY WARNINGS FOR GAS TRIMMERS

WARNING: Gasoline is highly flammable, and its vapors can explode if ignited. Take the following precautions:

- Store fuel only in containers specifically designed and approved for the storage of such materials.
- Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank, or add fuel, when the engine is hot. Never operate the unit without the fuel cap securely in place. Loosen the fuel tank cap slowly to relieve any pressure in the tank.

- Mix and add fuel in a clean, well-ventilated area outdoors where there are no sparks or flames. Slowly remove the fuel cap only after stopping engine. Do not smoke while fueling or mixing fuel. Wipe up any spilled fuel from the unit immediately.
- Avoid creating a source of ignition for spilled fuel. Do not start the engine until fuel vapors dissipate.
- Move the unit at least 30 feet (9.1 m) from the fueling source and site before starting the engine. Do not smoke, keep sparks and open flames from the area while adding fuel or operating the unit.

WHILE OPERATING

- Never start or run the unit inside a closed room or building. Breathing exhaust fumes can kill. Operate this unit only in a well ventilated area outdoors.
- Wear safety glasses or goggles that are marked as meeting ANSI Z87.1 standards, and ear/hearing protection when operating this unit. Wear a face or dust mask if the operation is dusty.
- Wear heavy, long pants, boots, gloves and a long sleeve shirt. Do not wear loose clothing, jewelry, short pants, sandals or go barefoot. Secure hair above shoulder level.
- The cutting attachment shield must always be in place while operating the unit. Do not operate unit without both trimming lines extended, and the proper line installed. Do not extend the trimming line beyond the length of the shield.
- This unit has a clutch. The cutting attachment remains stationary when the engine is idling. If it does not, have the unit adjusted by an authorized service technician.
- Adjust the assist handle to your size to provide the best grip.
- Be sure the cutting attachment is not in contact with anything before starting the unit.
- Use the unit only in daylight or good artificial light.
- Avoid accidental starting. Be in the starting position whenever pulling the starter rope. The operator and unit must be in a stable position while starting. See Starting/Stopping Instructions.
- Use the right tool. Only use this tool for the purpose intended.
- Do not overreach. Always keep proper footing and balance.
- Always hold the unit with both hands when operating. Keep a firm grip on both the front and rear handle or grips.
- Keep hands, face, and feet at a distance from all moving parts. Do not touch or try to stop the cutting attachment when it is rotating.

- Do not touch the engine or muffler. These parts get extremely hot from operation. When turned off they remain hot for a short time.
- Do not operate the engine faster than the speed needed to cut, trim or edge. Do not run the engine at high speed when not cutting.
- Always stop the engine when cutting is delayed or when walking from one cutting location to another.
- If you strike or become entangled with a foreign object, stop the engine immediately and check for damage. Do not operate before repairing damage. Do not operate the unit with loose or damaged parts.
- Stop and switch the engine to off for maintenance, repair, or for changing the cutting attachment or other attachments.
- Use only genuine Ryobi replacement parts when servicing this unit. These parts are available from your authorized service dealer. Do not use parts, accessories or attachments not authorized by Ryobi for this unit. Doing so could lead to serious injury to the user, or damage to the unit, and void your warranty.
- Keep unit clean of vegetation and other materials. They may become lodged between the cutting attachment and shield.
- To reduce fire hazard, replace faulty muffler and spark arrestor, keep the engine and muffler free from grass, leaves, excessive grease or carbon build up.

WHILE OPERATING WITH EDGER ADD-ON

- Inspect the unit before use. Ensure the blade is installed correctly and secure.
- Clear the area to be edged before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in the edging attachment.

- Do not attempt to touch or stop the blade when it is rotating.
- A coasting blade can cause injury while it continues to spin after the engine is stopped or the throttle control is released. Maintain proper control until the blade has completely stopped rotating.
- Do not run the unit at high speed when not edging.
- If you strike or become entangled with a foreign object, stop the engine immediately and check for damage. Have any damage repaired before attempting further operations. Do not operate unit with a bent, cracked or dull blade. Discard blades that are bent, warped, cracked or broken.
- Stop the engine IMMEDIATELY if you feel excessive vibration. Vibration is a sign of trouble. Inspect thoroughly for loose nuts, bolts or damage before continuing. Repair or replace affected parts as necessary.

OTHER SAFETY WARNINGS

- Never store the unit, with fuel in the tank, inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing or transporting. Be sure to secure the unit while transporting.
- Store the unit in a locked up and dry or high and dry place to prevent unauthorized use or damage, out of the reach of children.
- Never douse or squirt the unit with water or any other liquid. Keep handles dry, clean and free from debris. Clean after each use, see **Cleaning and Storage** instructions.
- Keep these instructions. Refer to them often and use them to instruct other users. If you loan someone this unit, also loan them these instructions.

SAVE THESE INSTRUCTIONS

SAFETY AND INTERNATIONAL SYMBOLS

This operator's manual describes safety and international symbols and pictographs that may appear on this product. Read the operator's manual for complete safety, assembly, operating and maintenance and repair information.

SYMBOL

MEANING

SAFETY ALERT SYMBOL

Indicates danger, warning, or caution. May be used in conjunction with other symbols or pictographs.



WARNING - READ OPERATOR'S MANUAL

Read the Operator's Manual(s) and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.

FOR SERVICE INFORMATION, CALL:

USA: 1-800-345-8746 CANADA: 1-800-668-1238

SYMBOL



MEANING

WEAR EYE AND HEARING PROTECTION

WARNING: Thrown objects and loud noise can cause severe eye injury and hearing loss. Wear eye protection meeting ANSI Z87.1 standards and ear protection when operating this unit.

• KEEP BYSTANDERS AWAY

WARNING: Keep all bystanders, especially children and pets, at least 50 feet (15 m) from the operating area.

PRIMER BULB

Push primer bulb, fully and slowly, 5 to 7 times.

• UNLEADED FUEL

Always use clean, fresh unleaded fuel.

• OIL

Refer to operator's manual for the proper type of oil.

THROWN OBJECTS AND ROTATING CUTTER CAN CAUSE SEVERE INJURY

WARNING: Do not operate without the cutting attachment shield in place. Keep away from the rotating cutting attachment.

ON/OFF STOP CONTROL

ON / START / RUN

• ON/OFF STOP CONTROL

OFF OR STOP

• HOT SURFACE WARNING

Do not touch a hot muffler, gear housing or cylinder. You may get burned. These parts get extremely hot from operation. When turned off they remain hot for a short time.

SHARP BLADE

WARNING: Sharp blade on cutting attachment shield. To prevent serious injury, do not touch line cutting blade.

CHOKE CONTROL

A • FULL choke position. B • PARTIAL choke position. C • RUN position.



• DO NOT USE BLADES

WARNING: To prevent serious personal injury, do not attach or operate the unit with any type of brushcutting blade or brushcutting attachment.



WARNING: The operation of any power tool can cause foreign objects to be thrown into your eyes. This can lead to severe eye damage. Before commencing power tool operation, always wear safety glasses or goggles that are marked as meeting ANSI Z87.1 standards, and a full face shield when needed.

KNOW YOUR UNIT

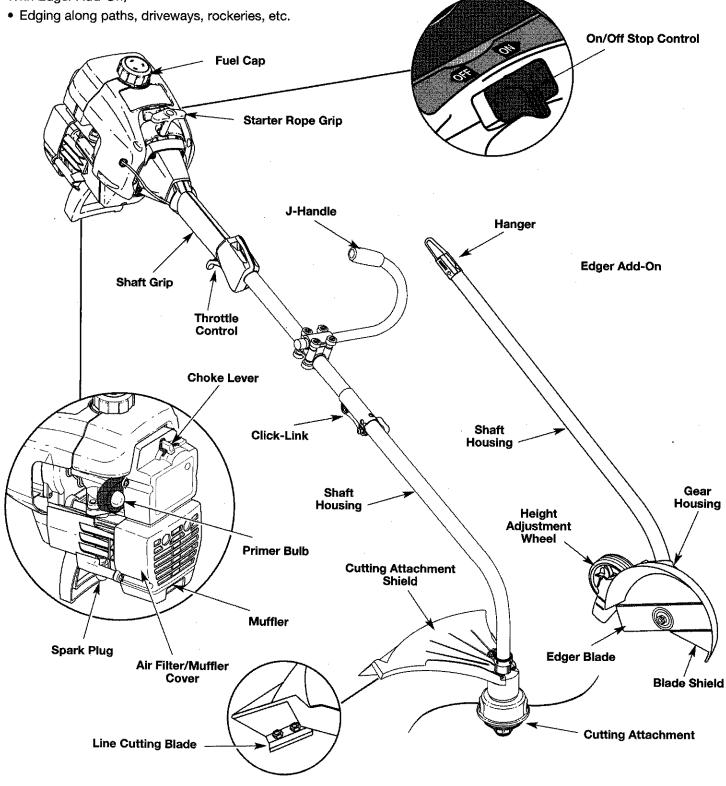
APPLICATIONS

As a trimmer;

- Cutting grass and light weeds.
- Decorative trimming around trees, fences, etc.

With Edger Add-On;

Other optional accessories may be used with the 725r. See list of add-ons on page 11.



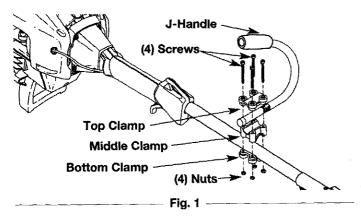
ASSEMBLY INSTRUCTIONS

On some units, the J-handle may be preinstalled and only require loosening the screws and adjusting the J-handle to the operator. Go to step 6 for adjusting the J-handle if preinstalled.

INSTALLING AND ADJUSTING THE J-HANDLE

Installing

- Remove the screws, nuts, top and middle clamp pieces that were installed on the J-handle for shipping.
- 2. Place the J-handle between the top and middle clamp pieces (Fig. 1).



- While holding the three pieces together, install the four (4) screws through the top clamp and into middle clamp.
- **NOTE:** The holes in the top and middle clamp will line up only when assembled correctly.
- 4. Place the clamps and J-handle over the shaft housing and onto the bottom clamp.
- 5. Hold each hex nut in the bottom clamp recess with a finger. Start screws with a large Phillips screwdriver. Do not tighten until you make the handle adjustment.

Adjusting

- Loosen the screws so that the J-handle can be easily moved in the clamp assembly. Do not remove the screws or nuts.
- 7. Slide the J-handle in or out until the arrow/white line on the decal touches the clamp assembly (Fig. 2).
- While holding the unit in the operating position (Fig. 3), position the J-handle to the location that provides you the best grip.
- 9. Tighten the clamp screws evenly, until the J-handle is secure.

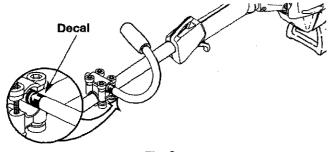


Fig. 2



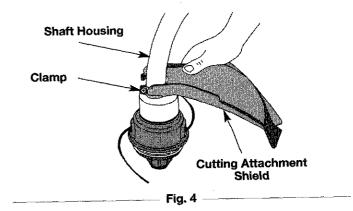
INSTALLING THE CUTTING ATTACHMENT SHIELD

Use the following instructions if the cutting attachment shield on your unit is not installed.

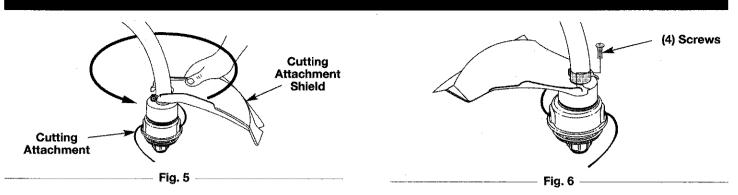


WARNING: Never operate the trimmer without the cutting attachment shield in place to prevent serious personal injury.

- 1. Place the cutting attachment shield onto the shaft housing above the clamp assembly (Fig. 4).
- 2. Push the cutting attachment shield down to the top of the cutting attachment assembly and then rotate the cutting attachment shield until the screw holes align and the guard fits into the recessed pocket (Fig. 5).
- 3. Install the screws with a Phillips screwdriver (Fig. 6).



ASSEMBLY INSTRUCTIONS



OIL AND FUEL INFORMATION

OIL AND FUEL MIXING INSTRUCTIONS

Old and/or improperly mixed fuel are the main reasons for the unit not running properly. Be sure to use fresh, clean unleaded fuel. Follow the instructions carefully for the proper fuel/oil mixture.

Definition of Blended Fuels

Today's fuels are often a blend of gasoline and oxygenates such as ethanol, methanol or MTBE (ether). Alcohol-blended fuel absorbs water. As little as 1% water in the fuel can make fuel and oil separate. It forms acids when stored. When using alcohol-blended fuel, use fresh fuel (less than 60 days old).

Using Blended Fuels

If you choose to use a blended fuel, or its use is unavoidable, follow recommended precautions.

- Always use fresh fuel mix per your operator's manual.
- Always agitate the fuel mix before fueling the unit.
- Drain the tank and run the engine dry before storing the unit.

Using Fuel Additives

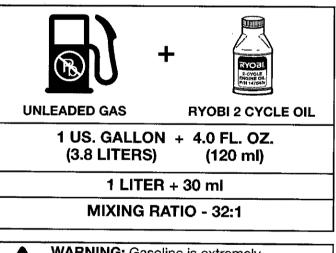
The bottle of Ryobi 2-Cycle oil that came with your unit contains a fuel additive which will help inhibit corrosion and minimize the formation of gum deposits. It is recommended that you use only Ryobi 2-Cycle oil with this unit.

If unavailable, use a good 2-cycle oil designed for air-cooled engines along with a fuel additive, such as STA-BIL® Gas Stabilizer or an equivalent. Add 0.8 oz. (23 ml) of fuel additive per gallon of fuel according to the instructions on the container. NEVER add fuel additives directly to the unit's fuel tank.



CAUTION: For proper engine operation and maximum reliability, pay strict attention to the oil and fuel mixing instructions on the 2-cycle oil container. Using improperly mixed fuel can severely damage the engine. Thoroughly mix the proper ratio of 2-cycle engine oil with unleaded gasoline in a separate fuel can. Use a 32:1 fuel/oil ratio. Do not mix them directly in the engine fuel tank. See the table below for specific gas and oil mixing ratios.

NOTE: One gallon (3.8 liters) of unleaded gasoline mixed with one 4 oz. (120 ml) bottle of RYOBI 2 CYCLE OIL makes a 32:1 fuel/oil ratio.





WARNING: Gasoline is extremely flammable. Ignited vapors may explode. Always stop the engine and allow it to cool before filling the fuel tank. Do not smoke while filling the tank. Keep sparks and open flames at a distance from the area.



WARNING: Remove fuel cap slowly to avoid injury from fuel spray. Never operate the unit without the fuel cap securely in place.



WARNING: Add fuel in a clean, well ventilated area outdoors. Wipe up any spilled fuel immediately. Avoid creating a source of ignition for spilt fuel. Do not start the engine until fuel vapors dissipate.

NOTE: Dispose of the old fuel/oil mix in accordance to Federal, State, and Local regulations.

STARTING/STOPPING INSTRUCTIONS

STARTING INSTRUCTIONS



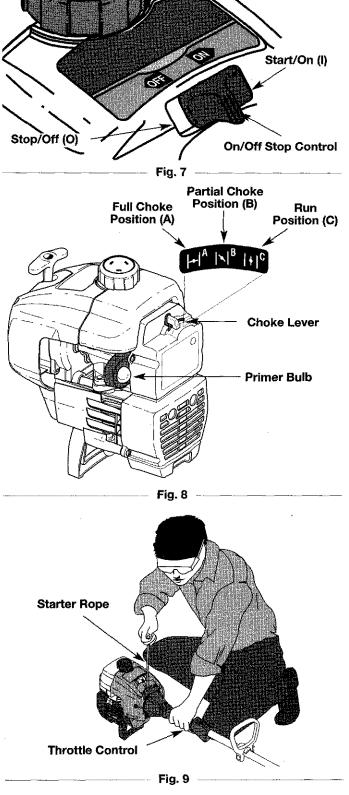
WARNING: Operate this unit only in a well ventilated area outdoors. Carbon monoxide exhaust fumes can be lethal in a confined area.



WARNING: Avoid accidental starting. Be in the starting position when pulling the starter rope (Fig. 9). The operator and unit must be in a stable position while starting to avoid serious personal injury.

Avoid serious personal injury, ensure any Add-On being used is installed correctly and secure before starting unit.

- 1. Mix gas with oil. Fill fuel tank with fuel/oil mixture. See Oil and Fuel Mixing Instructions Pg. 9.
- 2. Put the On/Off Stop Control in the **ON (I)** position (Fig. 7).
- Fully press and release primer bulb slowly 5 to 7 times. Fuel should be visible in the bulb (Fig. 8). If fuel is not visible, press three (3) more times, or until it is.
- 4. Place the choke lever in the **FULL** choke (**A**) |+| position (Fig. 8).
- 5. With the unit in the starting position (Fig. 9), squeeze the throttle control to the wide open (full throttle) position and pull the starter rope briskly 5 times in the **FULL** choke (A) [+] position. If the engine attempts to run before the fifth pull, proceed to step 6.
- NOTE: The engine will not run in the FULL choke (A) |--| position.
- 6. Place the choke lever in the **PARTIAL** choke (**B**) |****| position (Fig. 8).
- 7. Pull starter rope briskly 1 to 3 times to start the engine (Fig. 9).
- **NOTE:** Squeeze the throttle control until the engine has started and warmed up.
- 8. If the engine does not start, repeat steps 4 through 7.
- NOTE: If the engine floods while trying to start, place the choke lever in the **RUN** (**C**) | | position (Fig. 8). Squeeze the throttle control. Pull the starter rope briskly. The engine should start within three (3) to eight (8) pulls.
- Squeeze the throttle control to warm up engine for 5 to 10 seconds. Place the choke lever in the RUN (C) || position (Fig. 8).
- NOTE: Choking is unnecessary when starting a warm engine. Put the On/Off Stop Control in the ON position (Fig. 7), and start in **PARTIAL** choke (**B**) [\] position (Fig. 8).



STOPPING INSTRUCTIONS

- 1. Release your hand from the throttle control (Fig. 9). Allow the engine to cool down by idling.
- 2. Put the On/Off Stop Control in the **OFF (O)** position (Fig. 7).

OPERATING INSTRUCTIONS

OPERATING THE CLICK-LINK® SYSTEM

The Click-Link[®] system enables the use of these optional add-ons.

Blower/Vacuum
CultivatorGC720r
Hedge Trimmer
Snow Thrower ST720r
Straight Shaft Trimmer (SpeedSpool®) SS725r
Tree Pruner
Turbo Blower



WARNING: Read and understand operator's manual for add-on prior to operation.

Removing the Cutting Attachment or Add-Ons:

- 1. Turn the knob counterclockwise to loosen (Fig. 10).
- 2. Press and hold the release button (Fig. 10).
- While firmly holding the upper shaft housing, pull the cutting attachment or add-on straight out of the Click-Link[®] coupler.
- **NOTE:** The cutting attachment and edger add-on have a red cap on the end of the shaft housing. Remove the red cap from the end of the shaft housing before assembling.

Installing the Cutting Attachment or Add-Ons:



WARNING: To avoid serious personal injury, shut unit off before removing or installing add-ons.

- **IOTE:** To make installing or removing the add-on easier, place the unit on the ground or on a work bench.
- . Turn the knob counterclockwise to loosen (Fig. 10).

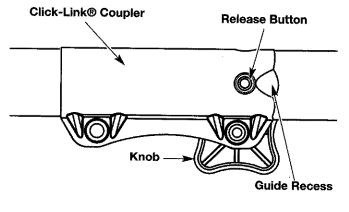
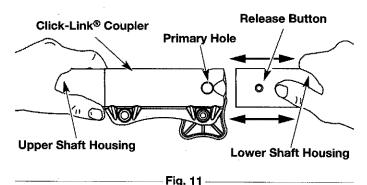


Fig. 10 ---

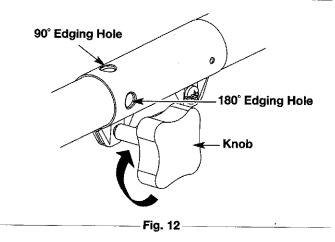
- 2. While firmly holding the add-on, push it straight into the Click-Link® coupler (Fig. 11).
- **NOTE:** Aligning the release button with the guide recess will help installation (Fig. 10).



3. Turn the knob clockwise to tighten (Fig. 12).



CAUTION: Lock the release button in the primary hole and securely tighten the knob before operating this unit.





CAUTION: The cutting attachment and add-ons with the Click-Link[®] system are to be used in the primary hole unless stated otherwise in the specific add-ons operator's manual. Using the wrong hole could lead to personal injury, or damage to the unit.

For edging when using the line head cutting attachment with Click-Link[®] models, lock the release button of the cutting attachment into the **90° edging hole** or the **180° edging hole** (Fig. 9). The edger add-on should be installed with the release button in the **primary hole**.

OPERATING INSTRUCTIONS

HOLDING THE TRIMMER



WARNING: Always wear eye, hearing, foot and body protection to reduce the risk of injury when operating this unit.

Before operating the unit, stand in the operating position (Fig. 13). Check for the following:

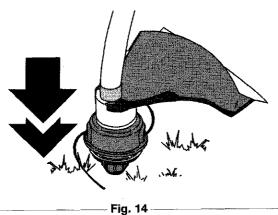
- The operator is wearing eye protection and proper clothing.
- The right arm is slightly bent, and the hand is holding the shaft grip.
- The left arm is straight, and the hand is holding the handle.
- The unit is at waist level.
- The cutting attachment is parallel to the ground and easily contacts the vegetation to be cut without the operator having to bend over.



ADJUSTING TRIMMING LINE LENGTH

The Bump Head[™] cutting attachment allows you to release trimming line without stopping the engine. To release more line, lightly tap the cutting attachment on the ground (Fig. 14) while operating the trimmer at high speed.

NOTE: Always keep the trimming line fully extended. Line release becomes more difficult as cutting line becomes shorter.



Each time the head is bumped, about 1 inch (25.4 mm) of trimming line is released. A blade in the cutting attachment shield will cut the line to the proper length if excess line is released.

For best results, tap the Bump Head[™] on bare ground or hard soil. If line release is attempted in tall grass, the engine may stall. Always keep the trimming line fully extended. Line release becomes more difficult as the cutting line becomes shorter.

NOTE: Do not rest the Bump Head[™] on the ground.



CAUTION: Do not remove or alter the line cutting blade assembly. Excessive line length will make the clutch overheat. This may lead to serious personal injury or damage to the unit.

Some line breakage will occur from:

- · Entanglement with foreign matter
- Normal line fatigue
- · Attempting to cut thick, stalky weeds
- Forcing the line into objects such as walls or fence posts

TIPS FOR BEST TRIMMING RESULTS

- Keep the cutting attachment parallel to the ground.
- Do not force the cutting attachment. Allow the tip of the line to do the cutting (especially along walls). Cutting with more than the tip will reduce cutting efficiency and may overload the engine.
- Cut grass over 8 inches (200 mm) by working from top to bottom in small increments to avoid premature line wear or engine drag.
- Cut from right to left whenever possible. Cutting to the left improves the unit's cutting efficiency. Clippings are thrown away from the operator.
- Slowly move the trimmer into and out of the cutting area at the desired height. Move either in a forward-backward or side-to-side motion. Cutting shorter lengths produces the best results.
- Trim only when grass and weeds are dry.
- The life of your cutting line is dependent upon;
 - Following the previous trimming techniques
 - · What vegetation is being cut
 - Where it's being cut

For example, the line will wear faster when trimming against a foundation wall as opposed to trimming around a tree.

DECORATIVE TRIMMING

Decorative trimming is accomplished by removing all vegetation around trees, posts, fences, etc.

Rotate the whole unit so that the cutting attachment is at a 30° angle to the ground (Fig. 15).

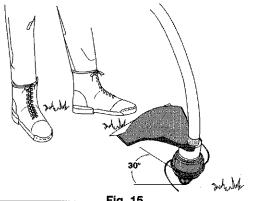


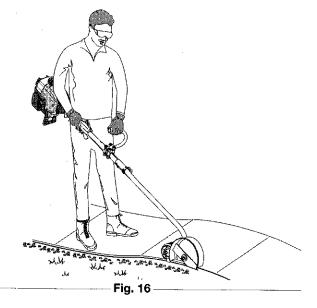
Fig. 15 —

HOLDING THE UNIT WITH EDGER ADD-ON

WARNING: Always wear eye, hearing, foot and body protection to reduce the risk of injury when operating this unit.

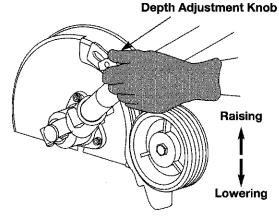
Before operating the unit, stand in the operating position (Figs. 16). Check for the following:

- The operator is wearing eye protection and proper clothing.
- The right arm is slightly bent, and the hand is holding the shaft grip.
- The left arm is straight, and the hand is holding the handle.
- The unit is at waist level.
- The edger wheel adjusted for proper cut depth and edger positioned as shown in Fig. 16.



ADJUSTING EDGER CUTTING DEPTH

- 1. Loosen the adjustment knob above the wheel (Fig 17).
- 2. Slide the wheel to the desired position.
 - Raising the wheel increases the cutting depth.
 - Lowering the wheel decreases the cutting depth.
- 3. Tighten the adjustment knob securely.



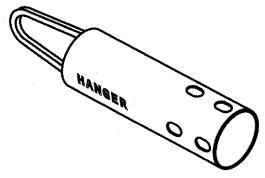
— Fig. 17 —

TIPS FOR BEST EDGING RESULTS

- Keep the cutting attachment perpendicular to the ground.
- Do not force the edger. Edge the first time at a lower depth, then do the area again with a deeper setting.
- · Walk the edger at a slow, even pace
- Check the blade condition, as it wears it becomes smaller, reducing the cutting depth performance. Replace with a new blade as required.

HANGER

A plastic hanger (Fig. 18) comes attached to the end of the add-on shaft housing. Use it to hang up the edger, cutting attachment, or other add-on out of the way when not in use. Push the release button on the shaft housing and pull the hanger to remove. Align the hole in the hanger with the release button on the shaft housing and push on to install.





NOTE: Some maintenance procedures may require special tools or skills. If you are unsure about these procedures take your unit to an authorized service dealer.

MAINTENANCE SCHEDULE

These required maintenance procedures should be performed at the frequency stated in the table. They should also be included as part of any seasonal tune-up.



WARNING: To prevent serious personal injury, never do maintenance or repairs with unit running. Always do maintenance and repairs on a cool unit. Disconnect spark plug wire to ensure the unit will not start.

FREQUENCY	MAINTENANCE REQUIRED	REFER TO:
Before Starting Engine	Fill fuel tank with correct oil and fuel mixture.	Page 9
Every 10 Hours	Clean and re-oil air filter.	Page 18
Every 50 Hours	Check spark plug condition and gap.	Page 20

LINE INSTALLATION FOR THE SPEEDSPOOL®

Always use genuine Ryobi 0.080 in. (2.03 mm) replacement line. Larger line may make the engine overheat or fail.



WARNING: Never use metal-reinforced line, wire, chain, or rope, etc. These can break off and become a dangerous projectile.

There are two methods to replace the SpeedSpool[®] trimming line.

- Wind the inner reel with new line
- · Install a prewound inner reel

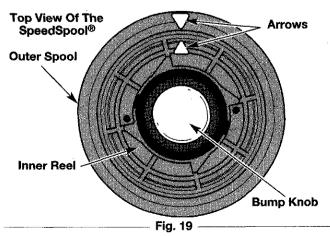
Winding the Inner Reel With New Line

NOTE: It is unnecessary to remove the bump knob to install new trimming line.

1. Cut two pieces of 0.080 in. (2.03 mm) trimming line, 10 feet (3 m.) long.

WARNING: Always use the correct line length when installing trimming line on the unit. The line may not release properly if the line is too long.

2. Hold the outer spool and turn the inner reel counterclockwise to line up the arrows on the outer spool and inner reel (Fig. 19).



- 3. Pull old line out of the line loading and line locking holes (Figs. 20 and 21).
- 4. Insert a piece of trimming line into one of the two eyelets in the outer spool. Push it up through the line loading hole in the inner reel (Fig. 20). Do not bend the line when inserting it into the eyelet.

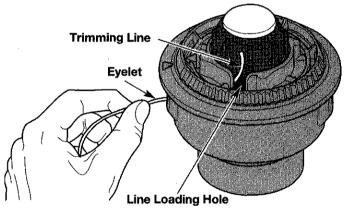
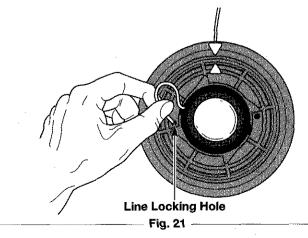


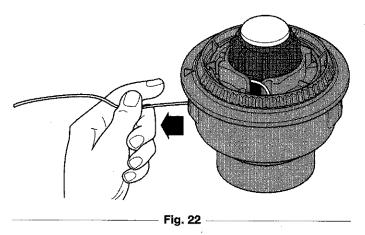
Fig. 20 -

5. Insert the line into the locking hole (Fig. 21). Do not push the line more than 1/2 inch (12.7 mm) into the line locking hole. When inserted correctly the line will form a small loop (Fig. 21).

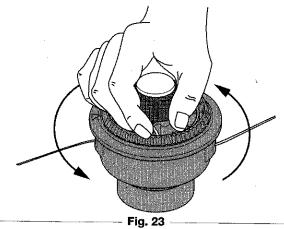


14

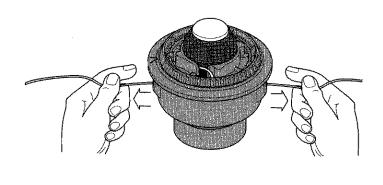
6. Pull the line from the outer spool until the line is tight against the inner reel (Fig. 22).



- 7. Repeat procedures 4-6 with the second piece of line.
- Hold the outer spool. Wind the inner reel counterclockwise until approximately four (4) inches (102 mm) of line remain (Fig. 23).
- NOTE: Do not wind the inner reel before installing the second piece of line.

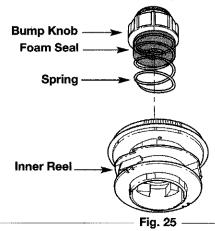


9. If winding the line becomes difficult or the line jams, pull the ends of the line from the spool (Fig. 24). Continue winding the inner reel counterclockwise.



INSTALLING A PREWOUND REEL

1. Turn the Bump Knob counterclockwise and remove the bump knob, spring, and foam seal (Fig. 25).



- 2. Pull the old inner reel with existing line from the outer spool.
- 3. Insert the ends of the prewound inner reel line into the outer spool eyelets (Fig. 26). Push the new inner reel, arrow side up, into the outer spool.



Fig. 26

4. Hold the inner reel in place and install the bump knob, spring and foam seal. Press down and turn the bump knob clockwise. Grasp the ends and pull firmly to release the line from the holding slots in the inner reel. (Fig. 24).

Releasing the Inner Reel

If the SpeedSpool[®] does not release line correctly, pull the ends of the line firmly from the spool (Fig. 24). If this does not release line, follow the **Cleaning the SpeedSpool**[®] instructions.

Cleaning the SpeedSpool®

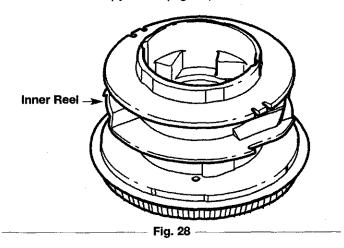
Cleaning the SpeedSpool® may be necessary,

- To remove jammed or excess line,
- If the SpeedSpool[®] becomes difficult to wind or does not operate correctly when bumping the head on the ground,
- 1. Hold the outer spool, and unscrew the bump knob counterclockwise (Fig. 27).

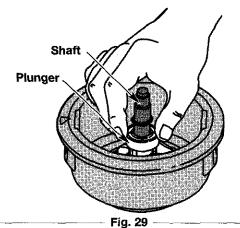


--- Fig. 27 -

- 2. Pull out the bump knob, spring, and foam seal (Fig. 25, Pg. 15).
- 3. Pull the inner reel with existing line from the outer spool (Fig. 25, Pg. 15).
- 4. Remove any existing line from the inner reel before cleaning. Remove any debris or grass from the knob, spring, inner reel, and foam seal. Wash the inner reel with warm soapy water (Fig. 28).



5. Clean the shaft and the inner surface of the outer spool. To clean the shaft underneath the plunger, press down on the plunger (Fig. 29). Remove any dirt or debris from the shaft.



- **NOTE:** The inner reel must be totally dry before reinstalling it into the outer spool. Do not lubricate the inner reel or outer spool assembly.
- 6. Place the inner reel into the outer spool.
- 7. Place the bump knob, spring, and foam seal into the inner reel (Fig. 25, Pg. 15).
- 8. Press the bump knob down and tighten clockwise.
- 9. Install new line as described in Line Installation for the SpeedSpool[®] Pg. 14.

SPEEDSPOOL[®] REPLACEMENT PARTS

Replacement Line				
Replacement Line Cartridge 181460				
Inner Reel Spring				
Foam Seal				
Inner Reel				
Bump Head Knob Assembly				
(Bump Head, Inner Reel, Spring,)				
These SpeedSpool [®] replacement parts can be				

These SpeedSpool[™] replacement parts can be purchased from your local authorized dealer.

EDGER BLADE REPLACEMENT



WARNING: To avoid serious personal injury, always wear gloves while handling, removing or installing the blade.



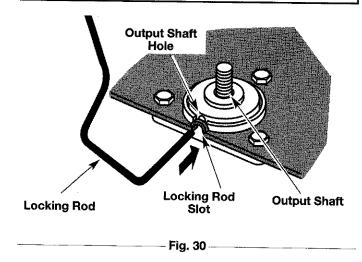
WARNING: The gear housing gets hot after long periods of use. To avoid serious personal injury, do not touch the housing until it has cooled.

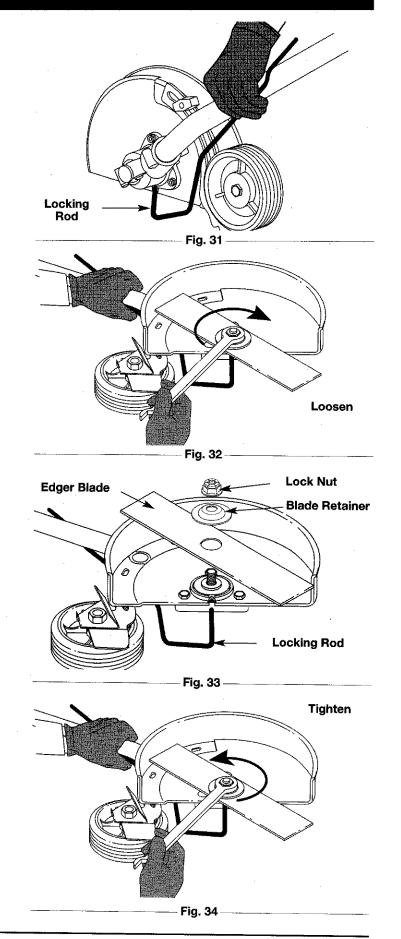
- 1. Line up the hole in output shaft with the locking rod slot. Insert the locking rod through the slot into the output shaft hole (Fig. 30).
- 2. Hold the locking rod in place by grasping it next to the boom of the unit (Fig. 31).
- While holding the locking rod, loosen the nut on the blade by turning it clockwise with a 5/8 inch wrench (Fig. 32). Remove the nut, retaining washer and blade. Keep the nut and blade retainer for installation.
- 4. Install the new blade, blade retainer, and nut (Fig. 33). Insert the locking rod through the slot into the output shaft hole. Make sure that the blade stays flat and centered against the output shaft while tightening the lock nut **counterclockwise** (Fig. 34).
- If you have a torque wrench, tighten the nut to 325-335 in.•lbs (37-38 N•m), while holding the locking rod in the slot.

If you do not have a torque wrench, hold the locking rod in the slot. Rotate the nut **counterclockwise** with a 5/8 inch closed-ended or socket wrench, until the nut presses against the washer and the blade is snug. Make sure the blade assembly is installed correctly, then rotate the nut an additional **1/4-1/2 turn** (Fig. 34).

6. Remove the locking rod.

WARNING: Verify the blade is flat against the output shaft after the nut is tightened. If the blade is off-center, the unit will be damaged by vibration, and the blade may fly off, which can cause serious personal injury.





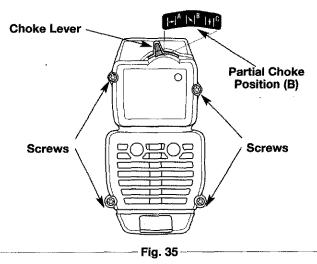
AIR FILTER MAINTENANCE

Removing the Air Filter/Muffler Cover



WARNING: To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

- 1. Place the choke lever in the **PARTIAL** choke position (**B**).
- **NOTE:** The choke lever must be in the **PARTIAL** choke position (**B**) (Fig. 35) to remove the air filter/muffler cover.
- Remove the four (4) screws securing the air filter/muffler cover (Fig. 35). Use a flat blade or T20 Torx bit screwdriver.



3. Pull the cover from the engine. Do not force.

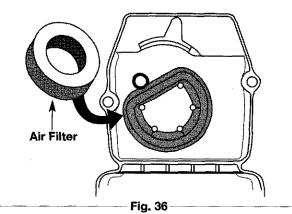
Cleaning the Air Filter



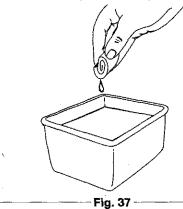
WARNING: To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

Clean and re-oil the air filter every 10 hours of operation. It is an important item to maintain. Not maintaining the air filter will VOID the warranty.

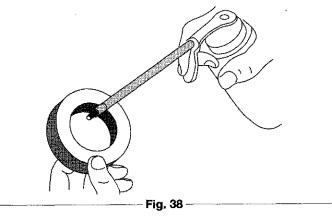
- 1. Remove air filter/muffler cover. See **Removing the** Air filter/Muffler Cover.
- 2. Remove the air filter from behind the air filter/muffler cover (Fig. 36).



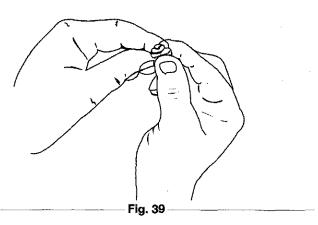
3. Wash the filter in detergent and water (Fig. 37). Rinse the filter thoroughly. Squeeze out excess water. Allow it to dry completely.



4. Apply enough clean SAE 30 oil to lightly coat the filter (Fig. 38).



5. Squeeze the filter to spread and remove excess oil (Fig. 39).



- 6. Replace the air filter in the air filter/muffler cover (Fig. 36).
- **NOTE:** Operating the unit without the air filter and air filter/muffler cover assembly, will VOID the warranty.

Reinstalling the Air filter/Muffler Cover

- 1. Place the air filter/muffler cover over the back of the carburetor and muffler.
- **NOTE:** The choke lever must be in the **PARTIAL** choke position (**B**) (Fig. 35) to install the air filter/muffler cover.
- Insert the four (4) screws into the holes in the air filter/muffler cover (Fig. 35) and tighten.
 Do not over tighten.

CARBURETOR ADJUSTMENT

The idle speed of the engine is adjustable through the Air filter/Muffler cover (Fig. 40).

NOTE: Careless adjustments can seriously damage your unit. An authorized service dealer should make carburetor adjustments.

Check Fuel Mixture

Old and/or improperly mixed fuel is usually the reason for the unit not running properly. Drain and refill the tank with fresh, properly mixed fuel prior to making any adjustments. Refer to **Oil and Fuel Information** Pg, 9.

Clean Air Filter

The condition of the air filter is important to the operation of the unit. A dirty air filter will restrict air flow and change the air/fuel mixture. This is often mistaken for an out of adjustment carburetor. Check the condition of the air filter before adjusting the idle speed screw. Refer to **Air Filter Maintenance** Pg. 18.

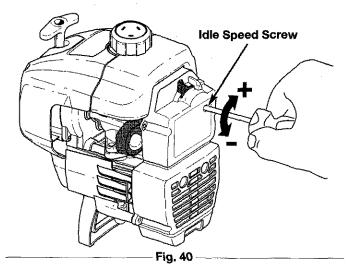
Adjust Idle Speed Screw



WARNING: The cutting attachment may be spinning during idle speed adjustments. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

If after checking the fuel mixture and cleaning the air filter the engine still will not idle, adjust the idle speed screw as follows.

- 1. Start the engine and let it run at a high idle for a minute to warm up. See **Starting/Stopping Instructions**, Pg. 10.
- Release the throttle trigger and let the engine idle. If the engine stops, insert a small phillips or flat blade screwdriver into the hole in the air filter/muffler cover (Fig. 40). Turn the idle speed screw in, **clockwise**, 1/8 of a turn at a time (as needed) until the engine idles smoothly.



- **NOTE:** The cutting attachment should not rotate when the engine idles.
- If the cutting attachment rotates when the engine idles, turn the idle speed screw counterclockwise 1/8 of a turn at a time (as needed), to reduce idle speed.

Checking the fuel mixture, cleaning the air filter, and adjusting the idle speed screw should solve most engine problems.

If not and:

- The engine will not idle,
- The engine hesitates or stalls on acceleration,
- There is a loss of engine power,

have the carburetor adjusted by an authorized service dealer.



WARNING: When the unit is turned off make sure the cutting attachment has stopped before the unit is set down to prevent serious personal injury.

REPLACING THE SPARK PLUG

Use a Champion RDJ7Y spark plug (or equivalent). The correct air gap is **0.020 inch (0.5 mm)**. Remove the plug after every 50 hours of operation and check its condition.

- 1. Stop the engine and allow it to cool. Grasp the plug wire firmly and pull it from the spark plug.
- 2. Clean around the spark plug. Remove the spark plug from the cylinder head by turning a 5/8 in. socket counterclockwise.
- 3. Replace cracked, fouled or dirty spark plug. Set the air gap at **0.020 in. (0.5 mm)** using a feeler gauge (Fig. 41).



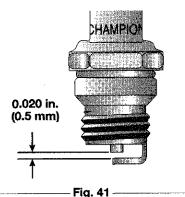
CAUTION: Do not sand blast, scrape, or clean electrodes. Grit in the engine could damage the cylinder.

4. Install a correctly gapped spark plug in the cylinder head. Tighten by turning the 5/8 in. socket clockwise until snug.

If using a torque wrench torque to;

110-120 in.+lb. (12.3-13.5 N+m).

Do not over tighten.



ACCESSORIES/REPLACEMENT PARTS

2-Cycle Oil
Spark Plug 610311
Replacement Line
Replacement Line Cartridge 181460
Inner Reel Spring
Outer Spool
Inner Reel
Bump Knob™
Fuel Cap
Edger Blade 613223
Shoulder Strap 682075

These replacement parts can be purchased from your local authorized dealer.

CLEANING



WARNING: To avoid serious personal injury, always turn your trimmer off and allow it to cool before you clean or do any maintenance on it.

Use a small brush to clean off the outside of the unit. Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene, can damage plastic housing or handle. Wipe off any moisture with a soft cloth.

STORAGE

- Never store the unit with fuel in the tank where fumes may reach an open flame or spark.
- Allow the engine to cool before storing.
- Store the unit locked up to prevent unauthorized use or damage.
- Store the unit in a dry, well ventilated area.
- Store the unit out of the reach of children.

LONG TERM STORAGE

If the unit will be stored for an extended time, use the following storage procedure.

- Drain all fuel from the fuel tank and drain into a container with the same 2-cycle fuel mixture. Do not use fuel that has been stored for more than 60 days. Dispose of the old fuel/oil mix in accordance to Federal, State, and Local regulations.
- 2. Start the engine and allow it to run until it stalls. This ensures that all fuel has been drained from the carburetor.
- Allow the engine to cool. Remove the spark plug and put 1 oz. (30 ml) of any high quality motor oil or 2-cycle oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.
- **NOTE:** Remove the spark plug and drain all of the oil from the cylinder before attempting to start the trimmer after storage.
- 4. Thoroughly clean the unit and inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts. The unit is ready for storage.

TRANSPORTING

- Allow the engine to cool before transporting.
- Secure the unit while transporting.
- Drain fuel from unit.
- Tighten fuel cap before transporting.

TROUBLESHOOTING

ENGINE WILL NOT START	
CAUSE	ACTION
On/Off Stop Control is in OFF position	Turn On/Off Stop Control to ON
Empty fuel tank	Fill fuel tank with properly mixed fuel
Primer bulb wasn't pressed enough	Press primer bulb fully and slowly 5-7 times
Engine flooded	Use starting procedure with choke lever in the RUN position, Pg. 10
Old or improperly mixed fuel	Drain gas tank / Add fresh fuel mixture
Fouled spark plug	Replace or clean the spark plug
ENGINE WILL NOT IDLE	
CAUSE	ACTION
Air Filter is Plugged	Replace or clean the air filter
Old or improperly mixed fuel	Drain gas tank / Add fresh fuel mixture
Improper carburetor adjustment	Adjust per instruction Pg. 19
ENGINE WILL NOT ACCELERATE	
CAUSE	ACTION
Old or improperly mixed fuel	Drain gas tank / Add fresh fuel mixture
Improper carburetor adjustment	Take to an authorized service dealer for carburetor adjustment
Cutting attachment bound with grass	Stop the engine and clean the cutting attachment
Dirty air filter	Clean or replace the air filter
ENGINE LACKS POWER OR STALLS W	HEN CUTTING
CAUSE	ACTION
Old or improperly mixed fuel	Drain gas tank / Add fresh fuel mixture
Improper carburetor adjustment	Take to an authorized service dealer for carburetor adjustment
CUTTING ATTACHMENT WILL NOT ADV	ANCE LINE
CAUSE	ACTION
Cutting attachment bound with grass	Stop the engine and clean cutting attachment
Cutting attachment out of line	Refill with new line
Inner reel bound up	Replace the inner reel
Cutting head dirty	Clean inner reel and outer spool
Line welded	Disassemble, remove the welded section and rewind the line
Line twisted when refilled	Disassemble and rewind the line
Not enough line is exposed	Push the Bump Knob and pull out line until 4 inches (102 mm) of line is outside of the cutting attachment
CUTTING LINE ADVANCES UNCONTRO	LABLY
	A O T I O N
CAUSE	ACTION

SPECIFICATIONS

ENGINE

Engine Type	Air-Cooled, 2-Cycle
Stroke	1.25 in. (31.75 mm)
Displacement	
Clutch Type	
Idle Speed RPM	2,800-3,600 rpm
Operating RPM (Trimmer)	
Ignition Type	Electronic
Ignition Switch	Slide Switch
Spark Plug Gap	0.020 in. (0.5 mm)
Lubrication	Fuel/Oil Mixture
Fuel/Oil Ratio	
Carburetor,	Diaphragm, All-Position
Starter	Auto Rewind
Muffler	Baffled with Guard
Throttle	
Fuel Tank Capacity	12 oz. (355 ml)

DRIVE SHAFT and CUTTING ATTACHMENT

Drive Shaft Housing	
Throttle Control	Finger-Tip Trigger
Unit Weight (No fuel, with cutting attachment, cutting attachment shield and	J-handle) 12.25 lbs. (5.6 kg)
Cutting Mechanism	. SpeedSpool Dual String Cutting Head
Shoulder Strap	
Line Spool Diameter	3 in (76.2 mm)
Trimming Line Diameter ,	0.080 in (2.03 mm)
Cutting Path Diameter	15 in. (38.1 cm)

EDGER ADD-ON

Unit Weight (Add-On only)	5.25 lbs. (2.36 kg)
Cutting Depth (maximum)	2.5 in. (63.5 mm)
Wheel Diameter	3.75 in (95.25 mm)
Gearbox Ratio	1.25:1

NOTES

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by MTD SOUTHWEST INC ("MTD") with respect with new merchandise purchased and used in the United States, its possessions and territories.

MTD warrants this product against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in material or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by MTD for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

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

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE THROUGH YOUR LOCAL AUTHORIZED SERVICE DEALER. To locate the dealer in your area, please check for a listing in the Yellow Pages or contact the Customer Service Department of MTD SOUTHWEST INC by calling 1-800-345-8746 or writing to 550 N. 54th Street, Chandler, Arizona 85226 or if in Canada call 1-800-668-1238. No product returned directly to the factory will be accepted unless prior written permission has been extended by the Customer Service Department of MTD SOUTHWEST INC.

This limited warranty does not provide coverage in the following cases:

- A. Tune-ups Spark Plugs, Carburetor Adjustments, Filters
- B. Wear items Bump Knobs, Outer Spools, Cutting Line, Inner Reels, Starter Pulley, Starter Ropes, Drive Belts
- C. MTD does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through MTD's authorized channels of export distribution.

MTD reserves the right to change or improve the design of any RYOBI® Product without assuming any obligation to modify any product previously manufactured. No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty or guaranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product shall bind MTD. During the period of the Warranty, the exclusive remedy is repair or replacement of the product as set forth above. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

The provisions as set forth in this Warranty provide the sole and exclusive remedy arising from the sales. MTD shall not be liable for incidental or consequential loss or damages including, without limitation, expenses incurred for substitute or replacement lawn care services, for transportation or for related expenses, or for rental expenses to temporarily replace a warranted product. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. Alteration of the safety features of the product shall void this Warranty. You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the use or misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser, original lessee or the person for whom it was purchased as a gift.

How State Law Relates to this Warranty: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To locate your nearest service dealer dial 1-800-345-8746 in the United States or 1-800-668-1238 in Canada.

RYOBI® is a registered trademark of Ryobi Limited.

MTD Southwest Inc

550 N. 54th Street Chandler, AZ 85226 U.S.A.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. FOR QUESTIONS CALL 1-800-345-8746 IN U.S. OR 1-800-668-1238 IN CANADA

OPERATOR'S MANUAL PART NO. 182770 PRINTED IN U.S.A. REV. A (9905) 9/00