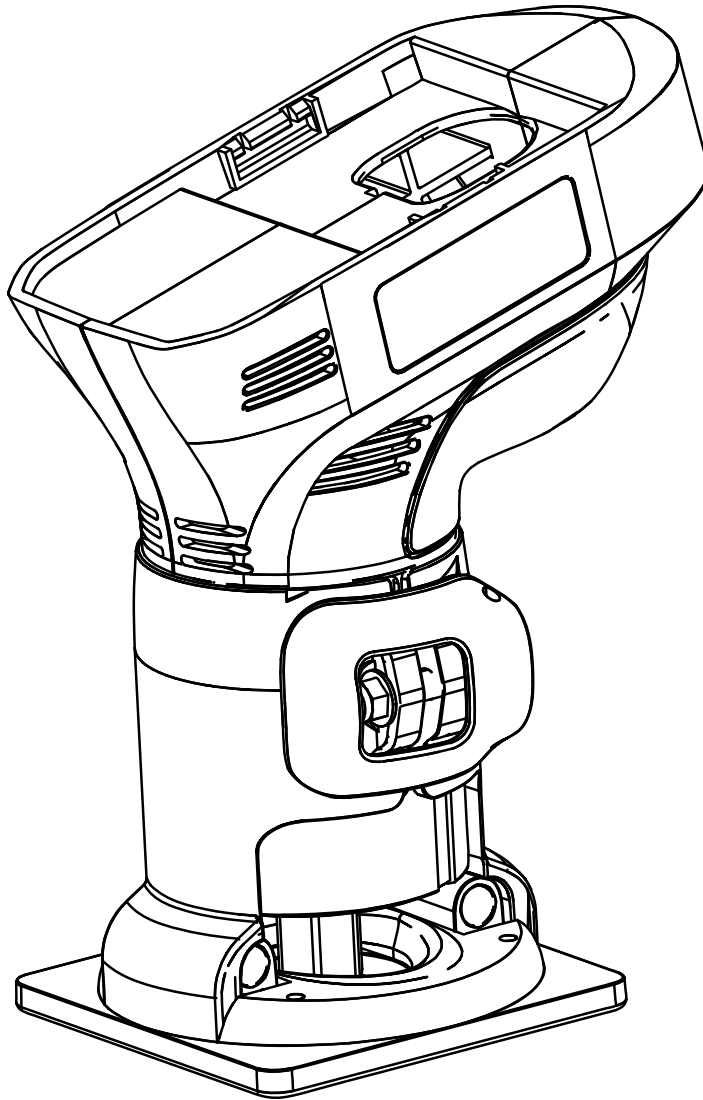




# OPERATOR'S MANUAL

## 18 VOLT TRIMMER

### P600



**BATTERIES AND CHARGERS  
SOLD SEPARATELY**

Your trimmer 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**

# TABLE OF CONTENTS

■ Introduction .....	2
■ Warranty .....	2
■ General Safety Rules .....	3-4
■ Specific Safety Rules.....	4
■ Safety Rules for Charger .....	5
■ Symbols.....	6-7
■ Features.....	8-9
■ Assembly .....	9-10
■ Operation.....	11-19
■ Maintenance.....	20
■ Accessories .....	21
■ Parts Ordering / Service .....	22

## INTRODUCTION

This tool 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.

## WARRANTY

### **RYOBI® POWER TOOL - LIMITED TWO YEAR WARRANTY AND 30 DAY EXCHANGE POLICY**

One World Technologies, Inc., warrants its RYOBI® power tools with the following conditions:

**30-DAY EXCHANGE POLICY:** During the first 30 days after date of purchase, you may either request service under this warranty or you may exchange any RYOBI® power tool which does not work properly due to defective workmanship or materials by returning the power tool to the dealer from which it was purchased. To receive a replacement power tool or requested warranty service, you must present proof of purchase and return all original equipment packaged with the original product. The replacement power tool will be covered by the limited warranty for the balance of the two year period from the date of the original purchase.

**WHAT THIS WARRANTY COVERS:** This warranty covers all defects in workmanship or materials in your RYOBI® power tool for a period of two years from the date of purchase. With the exception of batteries, power tool accessories are warranted for ninety (90) days. Batteries are warranted for two years.

**HOW TO GET SERVICE:** Just return the power tool, properly packaged and postage prepaid, to an Authorized Service Center. You can obtain the location of the Service Center nearest you by contacting a service representative at One World Technologies, Inc., P.O. Box 1207, Anderson, SC 29622-1207, by calling 1-800-525-2579 or by logging on to [www.ryobitools.com](http://www.ryobitools.com). When you request warranty service, you must also present proof of purchase documentation, which includes the date of purchase (for example, a bill of sale). We will repair any faulty workmanship, and either repair or replace any defective part, at our option. We will do so without any charge to you. We will complete the work in a reasonable time, but, in any case, within ninety (90) days or less.

**WHAT'S NOT COVERED:** This warranty applies only to the original purchaser at retail and may not be transferred. This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defects resulting from misuse, abuse, neglect, alteration, modification or repairs by other than Authorized Service Centers. One World Technologies, Inc. makes no warranties, representations or promises as to the quality or performance of its power tools other than those specifically stated in this warranty.

**ADDITIONAL LIMITATIONS:** Any implied warranties granted under state law, including warranties of merchantability or fitness for a particular purpose, are limited to two years from the date of purchase. One World Technologies, Inc. is not responsible for direct, indirect, or incidental damages, so the above limitations and exclusions 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.

# 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 WORK AREA**

- **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- **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.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

## **ELECTRICAL SAFETY**

- **A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.** A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
- **Use battery operated tool only with specifically designated battery pack.** Use of any other batteries may create a risk of fire.
- **Use battery only with charger listed.**

MODEL	BATTERY PACK (P100)	CHARGER (P110)
P600	130255004 or 130224028	1423701, 140237023 or 140237021

## **PERSONAL SAFETY**

- **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.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- **Avoid accidental starting. Be sure switch is in the locked or off position before inserting battery pack.** Carrying tools with your finger on the switch or inserting the battery pack into a tool with the switch on invites accidents.
- **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enable better control of the tool in unexpected situations.

- **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- **Do not wear loose clothing or jewelry. Contain long hair.** Loose clothes, jewelry, or long hair can be drawn into air vents.
- **Do not use on a ladder or unstable support.** Stable footing on a solid surface enables better control of the tool in unexpected situations.

## **TOOL USE AND CARE**

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **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 tool if switch does not turn it on or off.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **When battery pack is not in use, keep it away from other metal objects like: paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause sparks, burns, or a fire.
- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may create a risk of injury when used on another tool.
- **Keep the tool and its handle dry, clean and free from oil and grease.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any strong solvents to clean your tool. Following this rule will reduce the risk of loss of control and deterioration of the enclosure plastic.

# GENERAL SAFETY RULES

## SERVICE

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in a risk of injury.
- **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

# SPECIFIC SAFETY RULES

- **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.** Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- **Know your power tool. Read operator’s manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire, or serious injury.
- **Always wear safety glasses with side shields.** Everyday glasses have only impact resistant lenses. They are NOT safety glasses. Following this rule will reduce the risk of eye injury.
- **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.
- **Protect your hearing. Wear hearing protection during extended periods of operation.** Following this rule will reduce the risk of serious personal injury.
- **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 place battery tools or their batteries near fire or heat.** This will reduce the risk of explosion and possibly injury.
- **Never use a battery 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.
- **Batteries vent hydrogen gas and 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 charge battery tool in a damp or wet location.** Following this rule will reduce the risk of electric shock.
- **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. 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.

# SAFETY RULES FOR CHARGER

## **WARNING!**

### **READ AND UNDERSTAND ALL INSTRUCTIONS.**

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

- **Before using battery charger**, read all instructions and cautionary markings in this manual, on battery charger, battery, and product using battery to prevent misuse of the products and possible injury or damage.

## **CAUTION:**

To reduce the risk of electric shock or damage to the charger and battery, charge only nickel-cadmium rechargeable batteries as specifically designated on your charger. Other types of batteries may burst, causing personal injury or damage.

- **Do not use charger outdoors or expose to wet or damp conditions.** Water entering charger will increase the risk of electric shock.
- **Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not abuse cord or charger.** Never use the cord to carry the charger. Do not pull the charger cord rather than the plug when disconnecting from receptacle. Damage to the cord or charger could occur and create an electric shock hazard. Replace damaged cords immediately.
- **Make sure cord is located so that it will not be stepped on, tripped over, come in contact with sharp edges or moving parts or otherwise subjected to damage or stress.** This will reduce the risk of accidental falls, which could cause injury, and damage to the cord, which could result in electric shock.
- **Keep cord and charger from heat to prevent damage to housing or internal parts.**
- **Do not let gasoline, oils, petroleum-based products, etc. come in contact with plastic parts.** They contain chemicals that can damage, weaken, or destroy plastic.

- **An extension cord should not be used unless absolutely necessary.** Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:

- a. That pins on plug of extension cord are the same number, size and shape as those of plug on charger.
- b. That extension cord is properly wired and in good electrical condition; and
- c. That wire size is large enough for AC ampere rating of charger as specified below:

Cord Length (Feet)	25'	50'	100'
Cord Size (AWG)	16	16	16

**NOTE:** AWG = American Wire Gauge

- **Do not operate charger with a damaged cord or plug**, which could cause shorting and electric shock. If damaged, have the charger replaced by an authorized serviceman.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.** Take it to an authorized serviceman for electrical check to determine if the charger is in good working order.
- **Do not disassemble charger.** Take it to an authorized serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- **Unplug charger from outlet before attempting any maintenance or cleaning to reduce the risk of electric shock.**
- **Disconnect charger from the power supply when not in use.** This will reduce the risk of electric shock or damage to the charger if metal items should fall into the opening. It also will help prevent damage to the charger during a power surge.
- **Risk of electric shock.** Do not touch uninsulated portion of output connector or uninsulated battery terminal.
- **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.

---

## IMPORTANT SAFETY INSTRUCTIONS











### 1. **SAVE THESE INSTRUCTIONS**

This manual contains important safety and operating instructions for battery charger P110.

2. **Before using battery charger**, read all instructions and cautionary markings on battery charger, battery, and product using battery.
3. **CAUTION:** To reduce the risk of injury, charge only nickel-cadmium rechargeable batteries. Other types of batteries may burst, causing personal injury or damage.




# SYMBOLS

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

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
==	Direct Current	Type or a characteristic of current
$n_0$	No Load Speed	Rotational speed, at no load
	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The 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 safety goggles or safety glasses with side shields, or a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

# SYMBOLS

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

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

## SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.



### **WARNING:**

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. Save this operator's manual and review frequently for continuing safe operation and instructing others who may use this product.



### **WARNING:**



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

## SAVE THESE INSTRUCTIONS

# FEATURES

## PRODUCT SPECIFICATIONS

Motor.....	18 Volt DC
Switch.....	Single Speed
No Load Speed.....	28,000/min.
Collet Size.....	1/4 in.
Charger Input.....	120 V, 60 Hz, AC only
Charge Rate.....	1 hour

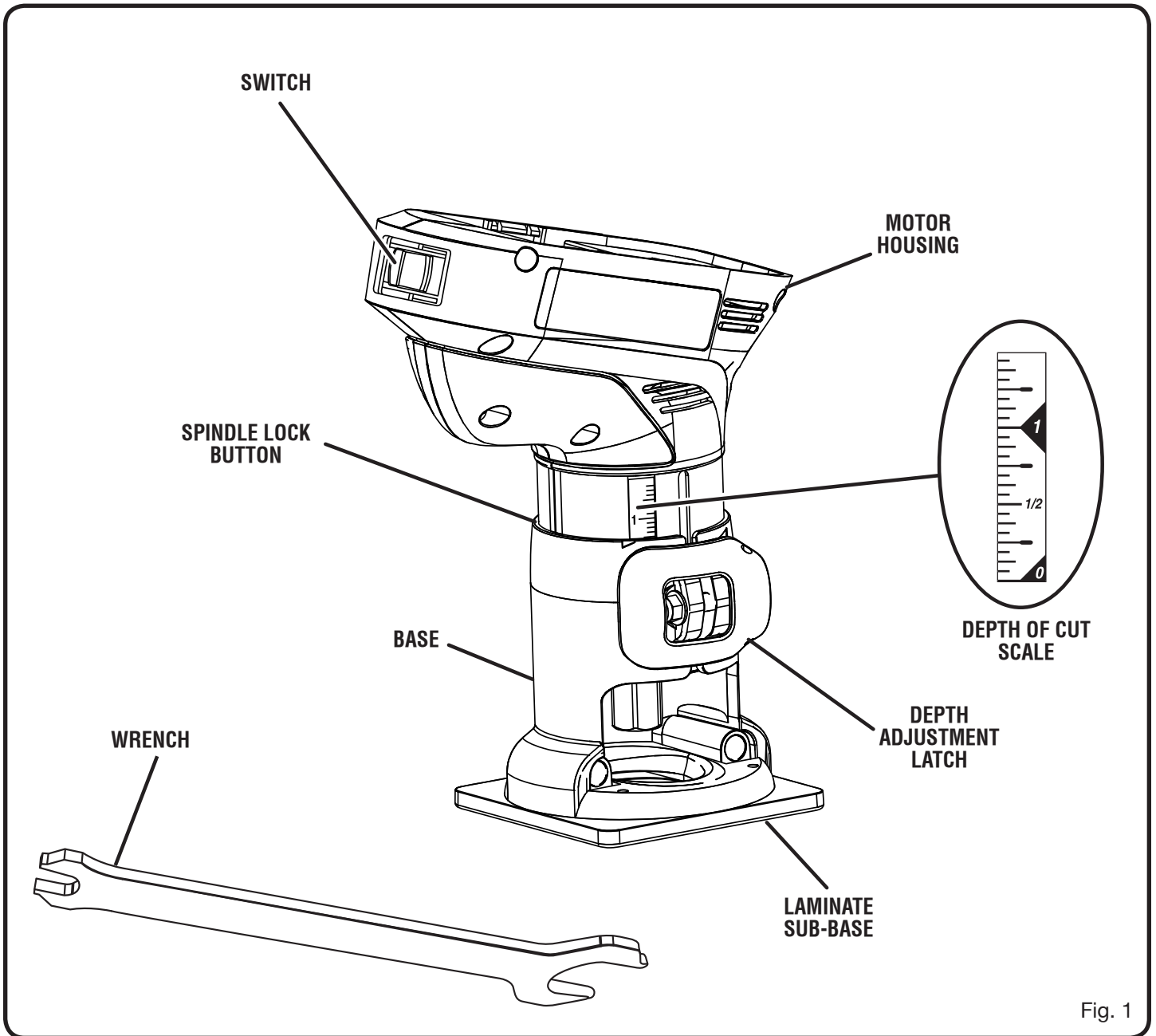


Fig. 1



# FEATURES

## KNOW YOUR LAMINATE TRIMMER

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.

### SWITCH

The **ON/OFF** switch is located on the back of the motor housing, facing the operator.

### DUAL GRIP

Your trimmer is designed for either right-handed or left-handed operation.

## SPINDLE LOCK

The spindle lock button allows quick bit changes.

## DEPTH OF CUT SCALE

Your trimmer has an adjustable depth of cut scale on each side of the tool.

## LAMINATE SUB-BASE

The sub-base gives the operator greater visibility of the workpiece during laminate trimming operations.

## OPTIONAL TRIM ROUTER SUB-BASE (NOT INCLUDED)

Easily adapts the tool from a trimmer to a trim router capable of light-duty routing operations.

# ASSEMBLY

## UNPACKING

This product has been shipped completely assembled.

- Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool 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 tool.
- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.

## PACKING LIST

Laminate Trimmer  
Collet/Latch Adjustment Wrench  
Lanyard (not included in combo)  
Operator's Manual



### WARNING:

If any parts are missing do not operate this tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.



### WARNING:

Do not attempt to modify this tool or create accessories not recommended for use with this tool. 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 tool when assembling parts.

# ASSEMBLY

## INSTALLING/REMOVING TRIMMING BITS

See Figures 2 - 3.

If installing the bit for the first time, it can be installed once the collet nut is loose. If changing bits, the bit will easily slip from the collet after loosening the collet nut.

- Turn the switch to OFF and remove the battery pack from the trimmer.
- Place the trimmer upside down on a workbench.
- To remove the laminate sub-base assembly, open the depth adjustment latch. Slide the base upward, then left, then upward again to remove the base.
- Depress the spindle lock button.
- Use the wrench provided to turn the collet nut in a counterclockwise direction. Continue to depress the spindle lock button while loosening the collet nut.
- With the trimmer still upside down on a workbench, insert the shank of the bit into the collet. The shank of the bit should be close to but not touching the bottom of the collet. This allows for expansion when the bit gets hot. A clearance of 1/16 in. is adequate.

**NOTE:** The collet is machined to precision tolerances to fit bits with 1/4 in. diameter shanks.

- Hand-tighten the collet nut. Then, depress the spindle lock button and continue tightening the collet nut with the wrench provided by turning it in a clockwise direction.

### **WARNING:**

If the collet nut is not tightened securely, the bit may come out during use, causing serious personal injury.

- Replace the laminate sub-base assembly by sliding it onto the tool, along the grooves on the sides of the tool.

**NOTE:** Replace the base before using the trimmer. Do not attempt to operate the trimmer without the base installed.

- Close the depth adjustment latch.
- Replace the battery pack.

### **WARNING:**

If you are changing a bit immediately after use, be careful not to touch the collet nut, bit, or collet with your hands or fingers. They will get burned because of the heat buildup from cutting. Always use the wrench provided.

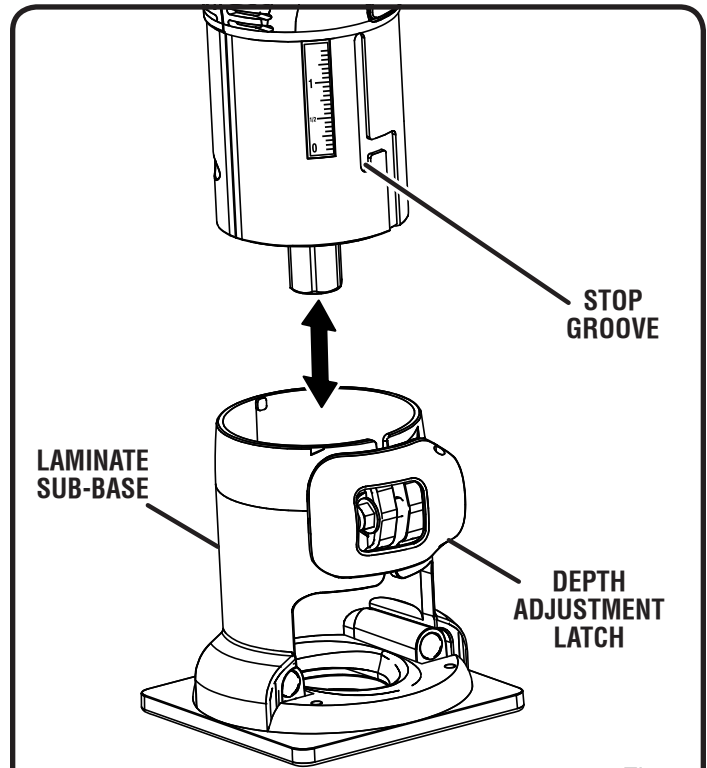


Fig. 2

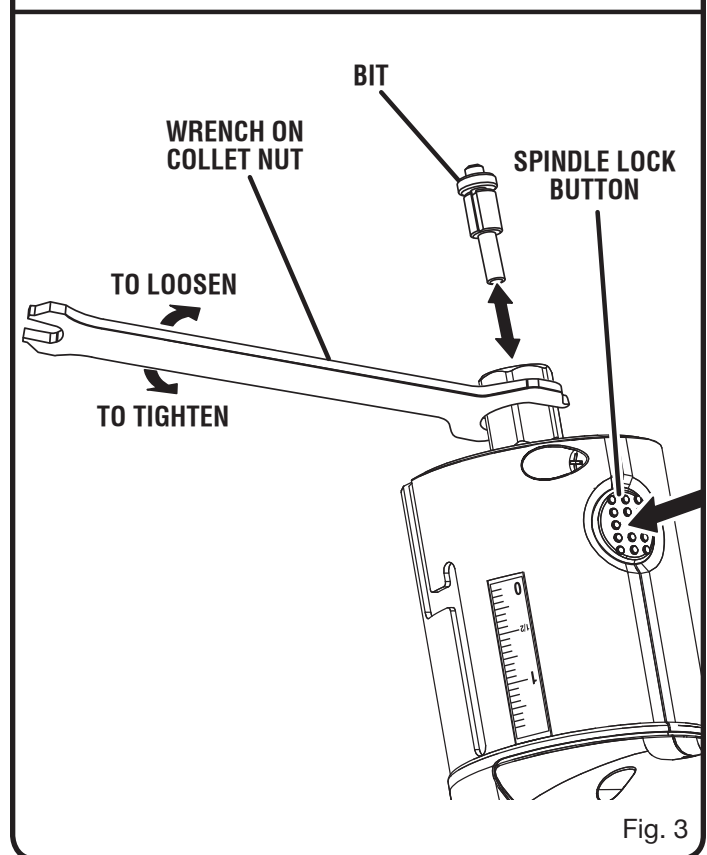


Fig. 3

# OPERATION

## **WARNING:**

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

## **WARNING:**

Always wear safety goggles or safety glasses with side shields when operating tools. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

## APPLICATIONS

You may use this tool for the following purposes:

- Smooth, professional trimming of laminates and wood veneer

When used with the optional woodworking sub-base with handles, this tool may be used for the following light-duty applications:

- Routing grooves and shaping edges in wood
- Chamfering, rabbeting, dadoing, and dovetailing in wood
- Routing edges on plastic laminates

## **CAUTION:**

If at any point during the charging process none of the LEDs are lit, remove the battery pack from the charger to avoid damaging the product. DO NOT insert another battery. Return the charger and battery to your nearest service center for service or replacement.

## LED FUNCTIONS OF CHARGER

### LED WILL BE ON TO INDICATE STATUS OF CHARGER AND BATTERY PACK:

- Red LED on = Fast charging mode.
- Green LED on = Fully charged and in maintenance charge mode.
- Green LED on = When battery pack is inserted into charger, indicates hot battery pack or that battery pack is out of normal temperature range.
- Yellow and Green LEDs on = Deeply discharged or defective battery pack.
- No LED on = Defective charger or battery pack.

## CHARGING THE BATTERY PACK

Battery packs for this tool are shipped in a low charge condition. Therefore, you should charge it until the green LED on the front of the charger comes on.

**NOTE:** Batteries will not reach full charge the first time they are charged. Allow several cycles (operation followed by recharging) for them to become fully charged.

## CHARGING A COOL BATTERY PACK

If battery pack is within normal temperature range, the red LED on charger will come on.

**NOTE:** If the charger does not charge the battery pack under normal circumstances, return both the battery pack and charger to your nearest Ryobi Authorized Service Center for electrical check.

- Charge the battery pack only with the charger provided.
- Make sure the power supply is normal household voltage, **120 volts, 60 Hz, AC only.**
- Connect the charger to the power supply.
- Place the battery pack in the charger aligning raised rib on the battery pack with the groove in the charger. See *Figure 4.*
- Press down on the battery pack to be sure contacts on the battery pack engage properly with contacts in the charger.
- Normally the red LED on charger will come on. This indicates the charger is in fast charging mode.
- Red LED should remain on for approximately 1 hour then the green LED will come on. Green LED on indicates battery pack is fully charged and charger is in maintenance charge mode.

**NOTE:** The green LED will remain on until the battery pack is removed from the charger or charger is disconnected from the power supply.

- If both yellow and green LEDs come on, this indicates a deeply discharged or defective battery pack. Allow the battery pack to remain in the charger for 15 to 30 minutes. When the battery pack reaches normal voltage range, the red LED should come on. If the red LED does not come on after 30 minutes, this may indicate a defective battery pack and should be replaced.
  - After normal usage, a minimum of 1 hour of charging time is required to fully recharge battery pack.
  - The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.
  - Do not place the charger and battery pack in an area of extreme heat or cold. They will work best at normal room temperature.
- NOTE:** The charger and battery pack should be placed in a location where the temperature is more than 50°F but less than 100°F.
- When batteries become fully charged, unplug the charger from power supply and remove the battery pack.

# OPERATION

## CHARGING A HOT BATTERY PACK

When using the tool continuously, the batteries in the battery pack will become hot. You should let a hot battery pack cool down for approximately 30 minutes before attempting to recharge. When the battery pack becomes discharged and is hot, this will cause the green LED to come on instead of the red LED. After 30 minutes, reinsert the battery pack in the charger. If the green LED continues to remain on, return battery pack to your nearest Ryobi Authorized Service Center for checking or replacing.

**NOTE:** This situation only occurs when continuous use of the tool causes the batteries to become hot. It does not occur under normal circumstances. Refer to “**CHARGING A COOL BATTERY PACK**” for normal recharging of batteries. If the charger does not charge your battery pack under normal circumstances, return both the battery pack and charger to your nearest Ryobi Authorized Service Center for electrical check.

## INSTALLING THE BATTERY PACK

See Figure 5.

**NOTE:** The battery pack is shipped in a low charge condition. Therefore, it must be charged prior to use. Refer to page 11, “**CHARGING THE BATTERY PACK**” for charging instructions.

- Place the battery pack in the trimmer. Align the raised rib on the battery pack with the groove inside the trimmer, then slide the battery pack into the trimmer.



### WARNING:

Always be sure the switch is in the OFF position before installing the battery pack. Failure to do so could cause accidental starting, leading to serious personal injury.

- Make sure the latches on each side of your battery pack snap into place and the battery pack is secured in the trimmer before beginning operation.

### CAUTION:

When placing battery pack in the tool, be sure raised rib on battery pack aligns with the bottom of the tool and latches into place properly. Improper installation of the battery pack can cause damage to internal components.

## REMOVING THE BATTERY PACK

See Figure 5.

- Locate the latches on the side of the battery pack and depress them to release the battery pack from the trimmer.
- Turn the switch to OFF and remove the battery pack from the trimmer.

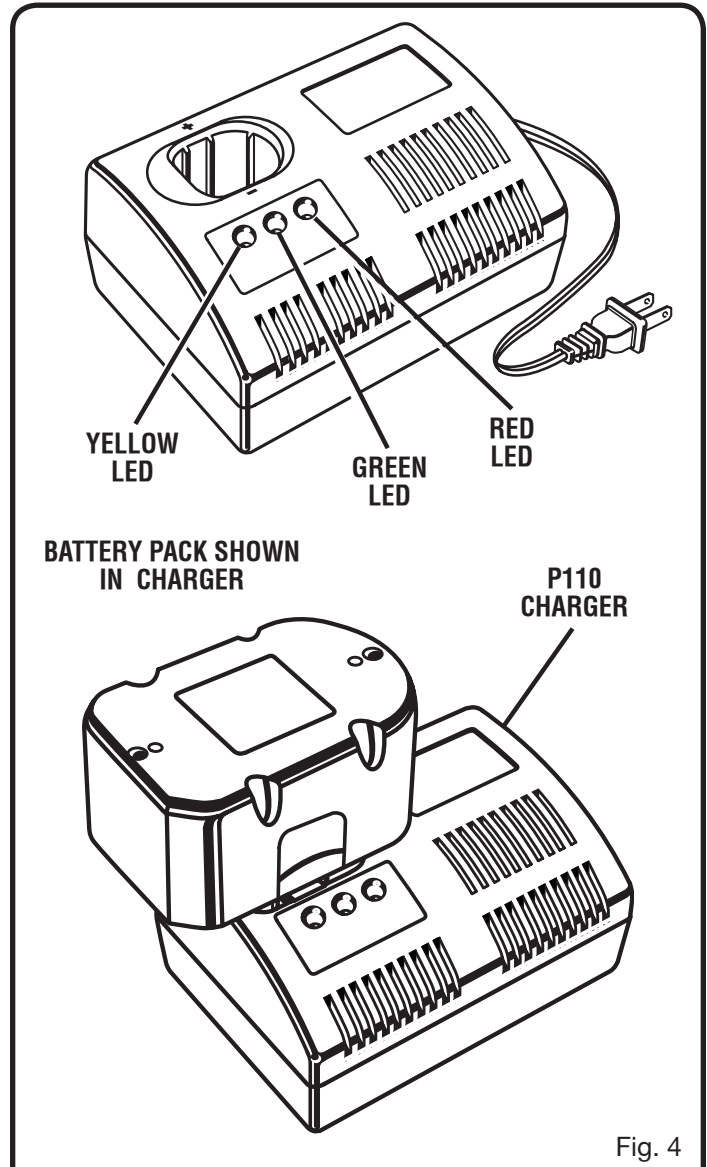


Fig. 4

### DEPRESS LATCHES TO REMOVE BATTERY PACK

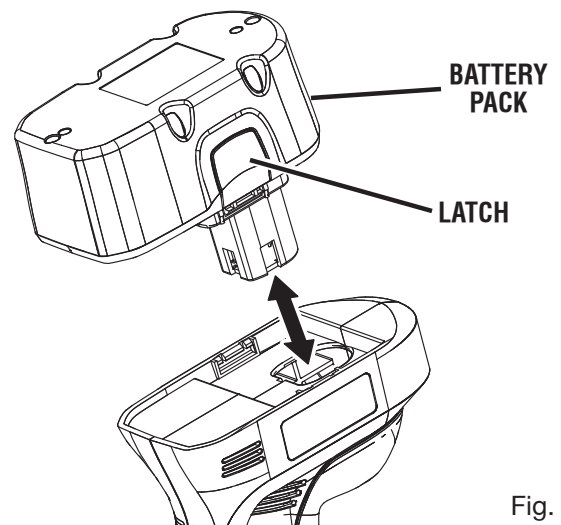


Fig. 5

# OPERATION

## **WARNING:**

Battery tools are always in operating condition. Therefore, switch should always be off and the battery pack removed when not in use or carrying at your side.

## GRIPPING THE TRIMMER

See Figure 6.

The trimmer has a dual grip design that allows the operator to hold the tool with either the right or left hand.

For right-handed operation, the depth adjustment latch must be on the left side of the tool. For left-handed operation, the depth adjustment latch must be on the right side of the tool.

Always hold the trimmer so that the switch is facing you and your thumb is positioned above the depth adjustment latch.

To change grip positions, remove the laminate sub-base assembly (See “Installing/Removing Trimming Bits”). Position the base for right- or left-handed operation.

**NOTE:** Replace the base before using the trimmer. Do not attempt to operate the trimmer without the base installed.

## **WARNING:**

Avoid hand positions that may expose fingers to bit through open areas of trimmer base. Fingers entering the opening in the trimmer base can be seriously cut or burned.

## **CAUTION:**

To avoid damaging the motor from overheating, do not let your hand cover the air vents.

## STARTING/STOPPING THE TRIMMER

See Figure 7.

To turn the trimmer **ON (I)**, slide the switch on front of the trimmer to the **ON (I)** position. Return the switch to the **OFF (O)** position when finished.

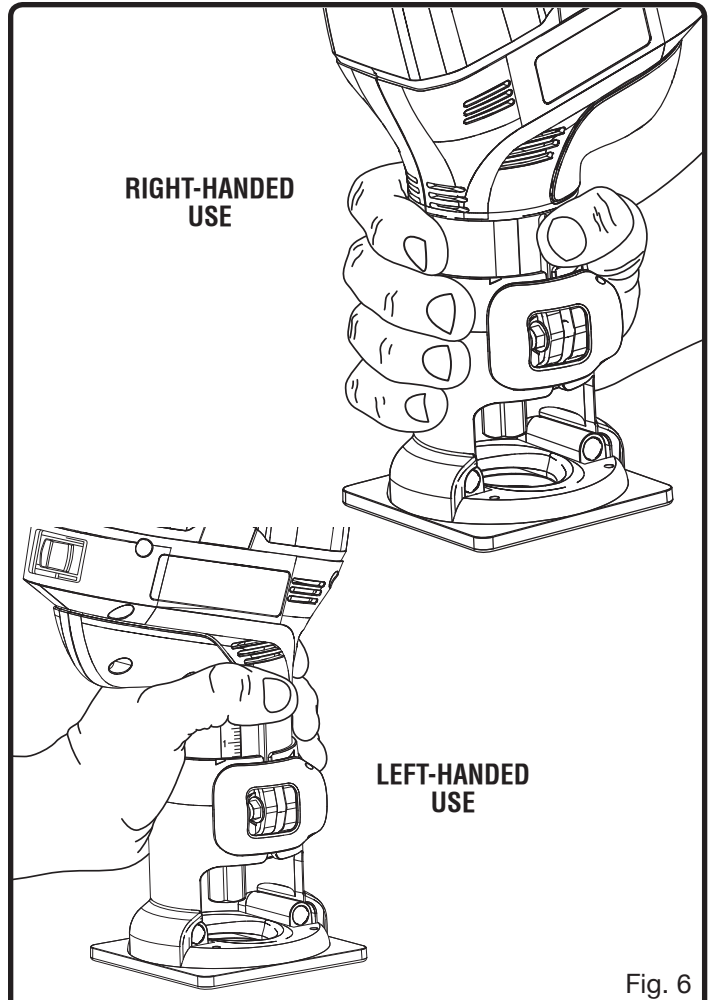


Fig. 6

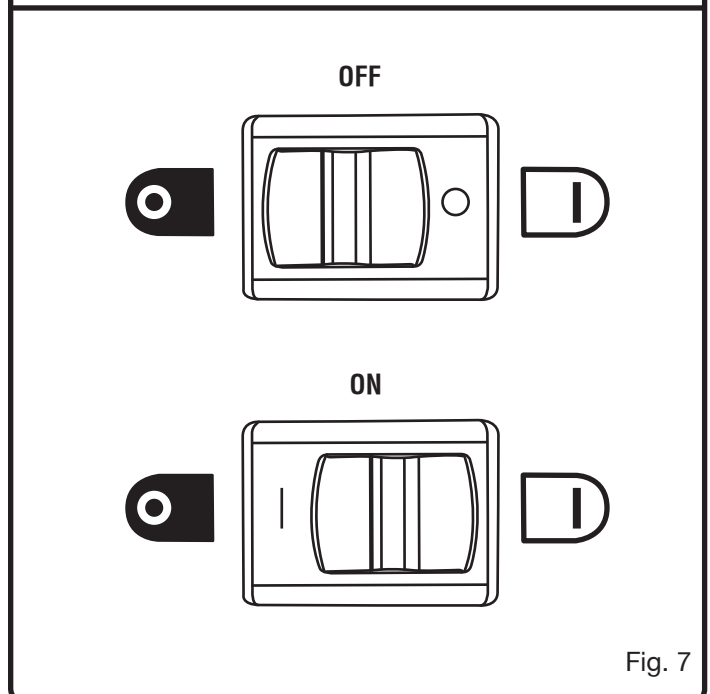


Fig. 7

# OPERATION

## OPERATING THE TRIMMER

Before starting the trimmer, with the battery pack disconnected, make sure the bit is securely tightened in the collet and that the depth of cut is properly set. Never start the trimmer while the bit is in contact with the workpiece.

After completing a cut, pull the bit slightly away from the cut surface. Turn the trimmer off and wait for the rotating bit to completely stop before completely removing the tool from the work surface.

When cutting, locate the base of the trimmer over the work surface and firmly hold the body of the trimmer with your hand. Make sure the trimmer is running at full speed before contacting the workpiece.

## DIRECTION OF FEED AND THRUST

See Figures 8 - 9.

The trimmer motor and bit revolve in a clockwise direction. This gives the tool a slight tendency to twist in your hands in a counterclockwise direction, especially when the motor starts.

Feed the trimmer into the workpiece from left to right. When fed from left to right, the rotation of the bit pulls the trimmer against the workpiece. If fed in the opposite direction, the rotation forces of the spinning bit will tend to throw the trimmer away from the workpiece, causing kickback. This could result in loss of control of the trimmer.

Because of the extremely high speed of bit rotation during a proper feeding operation, there is very little kickback to contend with under normal conditions. However, should the bit strike a knot, hard grain, foreign object, etc. that would affect the normal progress of the cutting action, there will be a slight kickback. Kickback could be sufficient to spoil the trueness of your cut if you are not prepared. Such a kickback is always in the direction opposite the direction of bit rotation.

To guard against kickback, plan your set-up and direction of feed so that you will always be thrusting the tool—to hold it against whatever you are using to guide the cut—in the same direction that the leading edge of the bit is moving. The thrust should be in a direction that keeps the sharp edges of the bit continuously biting straight into new (uncut) wood.

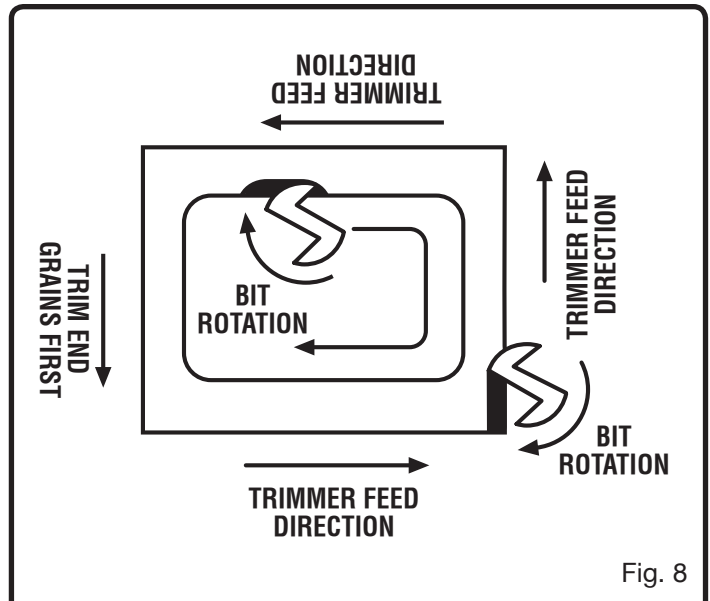


Fig. 8

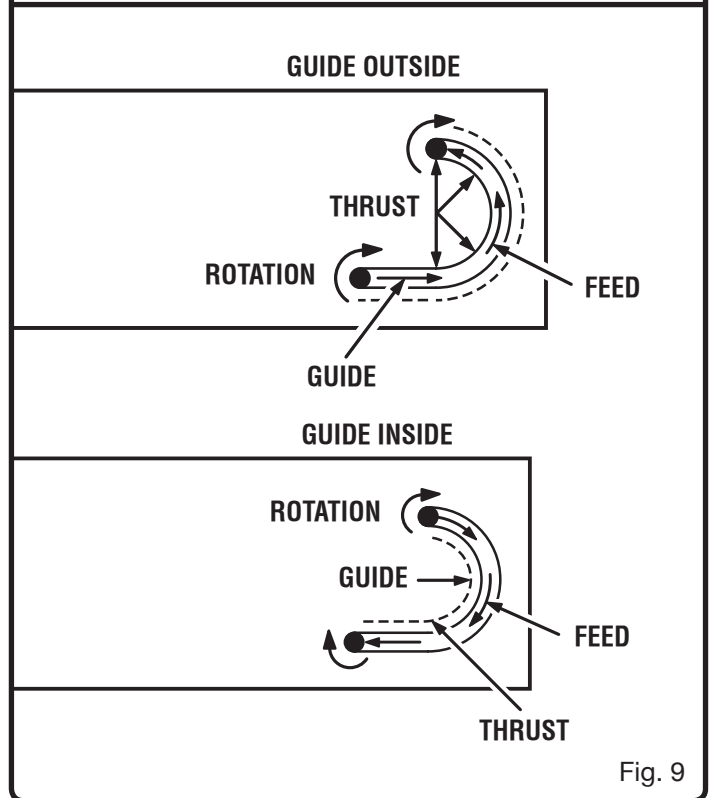


Fig. 9

# OPERATION

## SETTING DEPTH OF CUT

See Figure 10.

- Turn the switch off and remove the battery pack from the trimmer.
- Open the depth adjustment latch as indicated by the arrow.
- Slide the motor housing section of the trimmer upward until the tip of the bit reaches the work surface. The depth of cut is zero at this point.
- Adjust the position of the trimmer to obtain the desired depth of cut by moving the motor housing section up or down, as shown by the up/down arrow. The distance the bit moves can be read on the depth of cut scale. Each mark on the scale indicates a 1/16 in. change in depth setting. Indicator points are located on the base.
- Completely close the depth adjustment latch.

### **WARNING:**

Avoid open area of trimmer base. Serious personal injury will result from contact with a rotating bit.

**NOTE:** To make deeper cuts, it is necessary to make as many successive passes as required, lowering the bit 1/8 in for each new pass. To save time, perform all the cutting necessary at one depth setting, then lower the bit for the next pass. This will assure uniform depth when the final pass is completed.

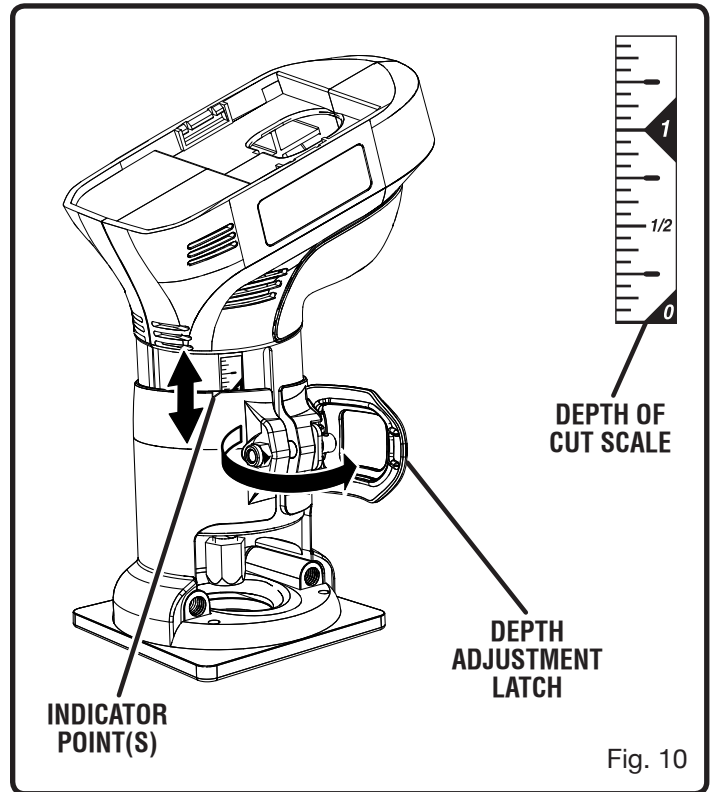


Fig. 10

# OPERATION

## OPTIONAL WOODWORKING SUB-BASE

Turn the P600 laminate trimmer into a trim router with the optional woodworking sub-base, Ryobi Part No. 200334001.

The woodworking sub-base accessory with handles is convenient when routing 4 in., 5 in., or 6 in. circular grooves. It can also be used when routing grooves parallel to the edge of the workpiece or with ball-bearing piloted bits.

The handles allow you to grasp and hold the trimmer with two hands, similar to grasping and holding a router.

This trimmer is designed for roundover and other edging operations up to 3/8 in. It is also useful for rabbeting or dado operations with straight bits up to a maximum diameter of 1/4 in.

### **WARNING:**

Do not use straight bits larger than 1/4 in. or edging bits which cut a pattern larger than 3/8 in. with this trimmer. Use of larger bits can result in loss of control and serious personal injury.

### **WARNING:**

Always use the laminate sub-base for laminate trimming. Always use the woodworking sub-base for trim routing operations. Use of the trimmer without a sub-base or using the incorrect sub-base can result in serious personal injury.

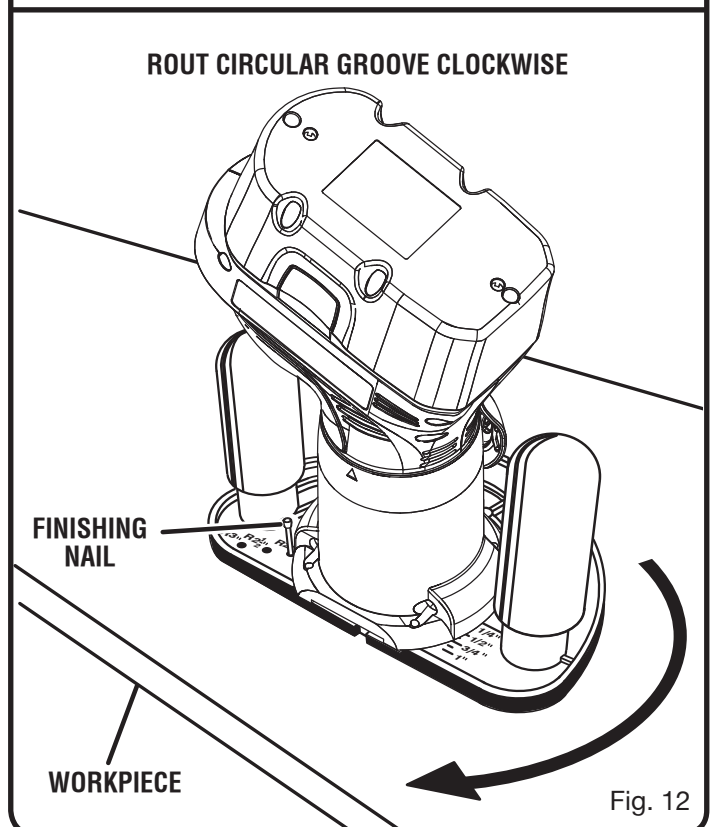
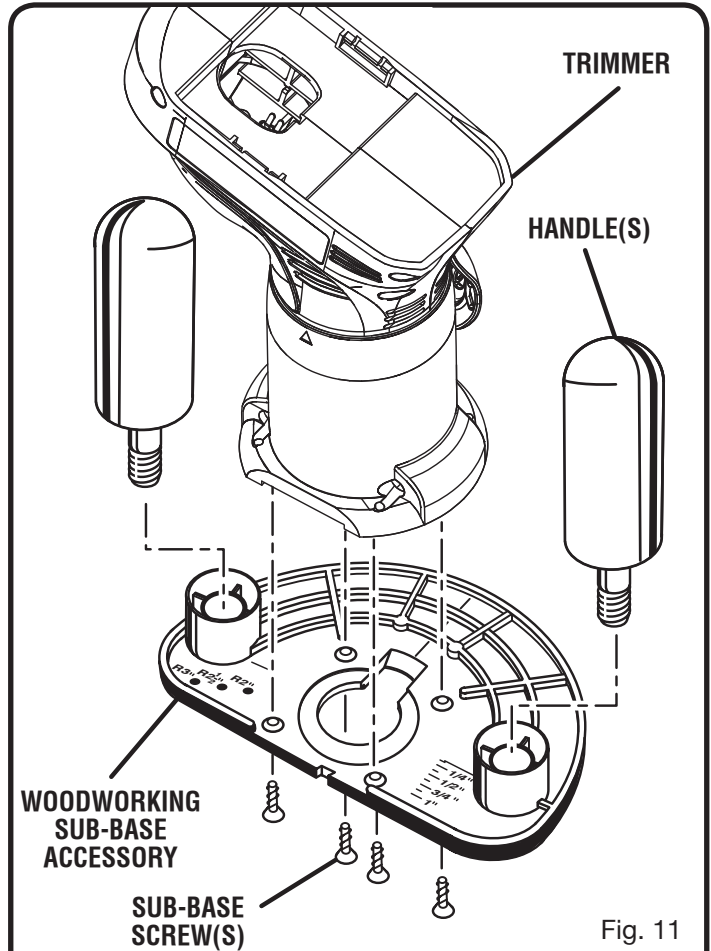
### **WARNING:**

Never install a bit larger than the opening of the trimmer base. The use of larger bits can result in loss of control and possible serious personal injury.

## ATTACHING THE WOODWORKING SUB-BASE ACCESSORY AND HANDLES

See Figure 11.

- Turn the switch to OFF and remove the battery pack from the trimmer.
- Turn the trimmer upside down to remove the four sub-base screws and laminate sub-base.
- Attach the woodworking sub-base accessory using the same four screws.
- Tighten the screws securely. Do not overtighten.
- Turn the trimmer upright and thread the handles provided into the threaded holes in the woodworking sub-base accessory.
- Tighten the handles securely. Check often to assure the handles remain securely tightened.





# OPERATION

## ROUTING GROOVES IN A CIRCLE

See Figure 12.

- There are three holes marked R2", R2-1/2", and R3" on the woodworking sub-base. Each number represents a radius and may be used when cutting circular grooves that are 4 in., 5 in. or 6 in. in diameter.
- Select the radius for the desired circle, place a finishing nail through the hole and securely tack it into the workpiece. This will create a pivot axis for that size radius.
- Rout a circular groove in a clockwise direction only.

## ROUTING GROOVES PARALLEL TO AN EDGE

See Figures 13 - 14.

You can use the scale provided on the woodworking sub-base accessory to cut a straight parallel line up to 1 in. from the edge of the workpiece.

- The intersection of the horizontal and vertical lines at the center of the woodworking sub-base accessory indicates the center of the cutter. This is also the center of groove being cut.
- For grooves more than 1 in. from the edge of workpiece, align the center of desired groove on the workpiece with the centerline on the woodworking sub-base accessory. Then measure from the centerline on the woodworking sub-base accessory to the guiding portion of the straight guide. Tighten the knob on the straight guide securely.
- Using "C" clamps and a board to act as the straight edge, place the cutter at the desired position on the workpiece and make the cut from right to left.

**NOTE:** The board being used as a straight edge must be 1/4 in. thick to prevent contact with the trimmer base. It must also be at least as long as the workpiece in order to be a guide.

- The thrust is from the trimmer against the straight edge.
- Do not make a cut that is too heavy in one pass. If a deep cut is required, make successive passes at increasing depths with each new pass until you reach the desired groove depth.

### **WARNING:**

If the desired depth of cut is greater than can be safely cut in one pass, make cuts in two or more passes. Do not remove more than 1/8 in. in a single pass. Excessive depth of cut can result in loss of control and the possibility of serious personal injury.

ROUT GROOVE FROM RIGHT TO LEFT

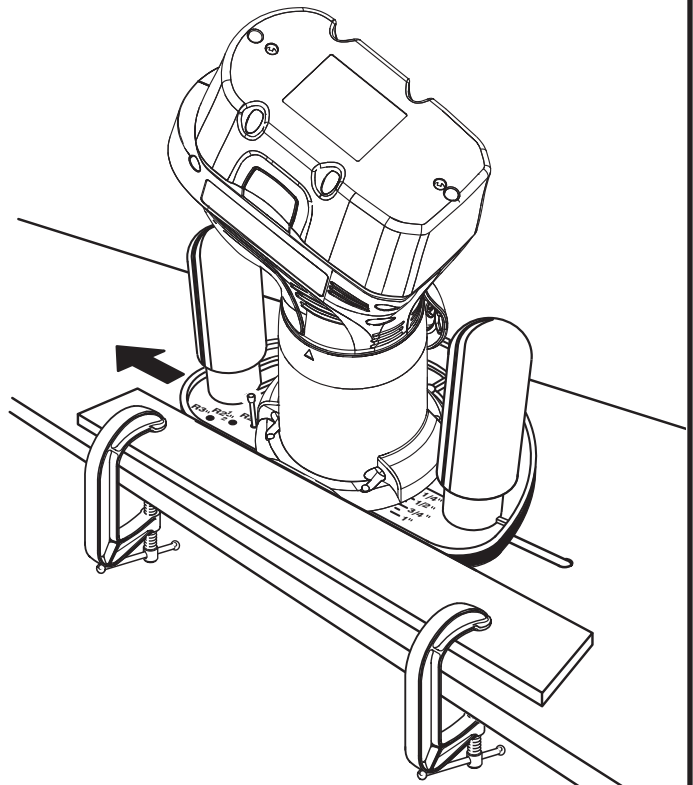


Fig. 13

TRIM ROUTER USED WITH A BALL-BEARING GUIDED BIT

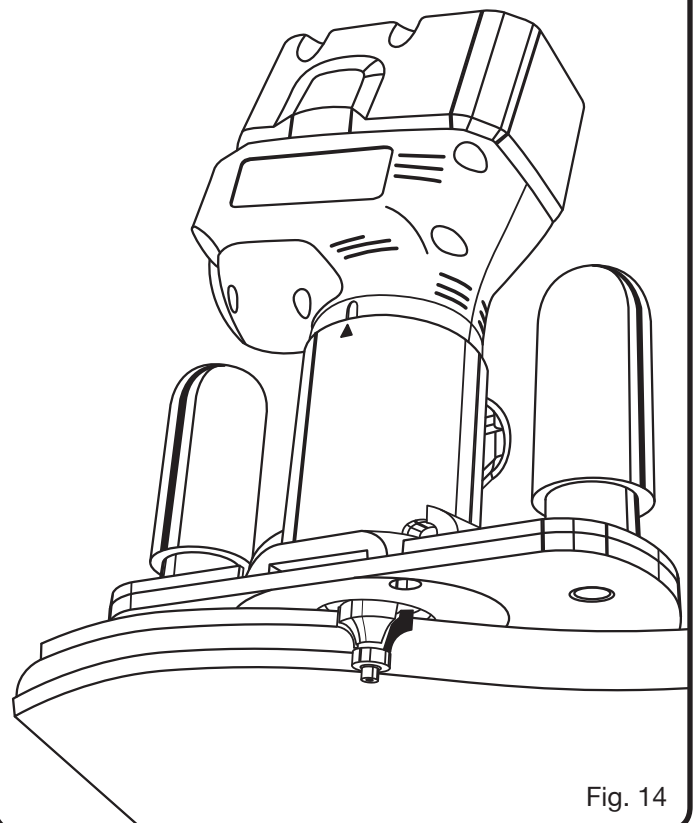


Fig. 14

# OPERATION

## PROPER RATE OF FEED

Trimming and edge shaping depend upon careful set-up and selecting the proper feed rate.

The proper feed rate is dependent upon:

- The hardness and moisture content of the workpiece
- The depth of cut. It is necessary that you do not exceed 1/8 in. depth of cut for proper rate of feed.
- The cutting diameter of the bit. Maximum bit size for roundover and edging operations is 3/8 in. max. Maximum straight bit size for rabbeting and dado operations is 1/4 in.

For edge shaping in soft woods such as pine, a faster rate of feed can be used. When edge shaping in hardwoods such as oak, a slower rate of feed will be required. In all wood types, a slower rate of feed is required when cutting shallow grooves.

Several factors will help you select the proper rate of feed.

- Choose a rate that does not slow down the trimmer motor.
- Choose the rate of feed at which the bit advances firmly and surely to produce a continuous spiral of uniform chips or a smooth trim edge on laminate.
- Listen to the sound of the trimmer motor. A high-pitched, strained sound means you are feeding too fast.
- Check the progress of each cut. Too-slow feeding can cause the trimmer to take off in a wrong direction from the intended line of cut. Force-feeding increases the strain of holding the tool and can result in damage to the tool.
- Notice the chips being produced as you cut. If the trimmer is fed too slowly, it will scorch or burn the wood. If the trimmer is fed too fast, it will take large chips out of the wood and leave gouge marks.

Always test a cut on scrap piece of the workpiece wood or laminate before you begin. Always grasp and hold the trimmer firmly when trimming.

When using the largest recommended straight bit (1/4 in.) in any type of wood, maintain a maximum cutting depth of 1/8 in. and a very slow feed rate to achieve the best quality cut. A cross-grain cut requires a slower pace than an identical cut with the grain in the same workpiece.

There is no fixed rule. Proper feed rate is learned through practice and use.

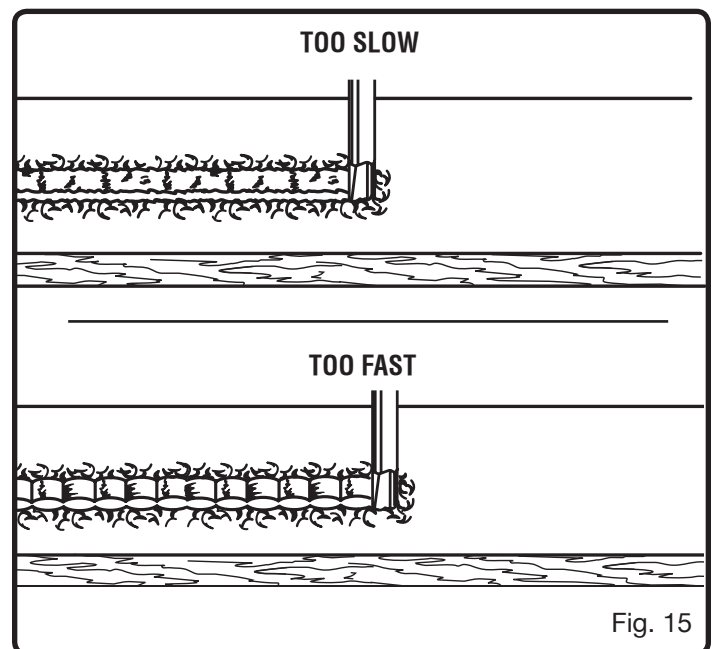
## FORCE FEEDING

See Figure 15.

The trimmer is an extremely high-speed tool (26,000/min.), and will make clean, smooth cuts if allowed to run freely without the overload of a forced feed. Three things that cause force feeding are bit size, depth of cut, and workpiece characteristics. The larger the bit or the deeper the cut, the more slowly the trimmer should be moved forward. If the wood is very hard, knotty, gummy or damp, the operation must be slowed still more.

Clean smooth trimming and edge shaping can be done only when the bit is revolving at a relatively high speed and is taking very small bites to produce tiny, cleanly-severed chips. If the trimmer is forced to move forward too fast, the speed of the bit becomes slower than normal in relation to its forward movement. As a result, the bit must take bigger bites as it revolves. Bigger bites mean bigger chips and a rougher finish. Bigger chips also require more power, which could result in overheating of the motor and lower battery life.

Under extreme force-feeding conditions, the relative speed of the bit can become so slow – and the bites it has to take so large – that chips will be partially knocked off rather than fully cut off. This will result in splintering and gouging of the workpiece and will likely damage the tool.



## TOO SLOW FEEDING

See Figure 15.

When the trimmer is advanced into the work too slowly it scrapes away sawdust-like particles instead of cleanly cutting into the workpiece. Scraping produces heat, which can glaze, burn, or mar the cut, and can overheat the bit. Dull bits can also contribute to scraping and burning.

It is more difficult to control a trimmer when the bit is scraping instead of cutting. With practically no load on the motor, the bit will be revolving near top RPM. When feeding too slowly, the bit will have a greater than normal tendency to bounce off the sides of the cut, especially if the wood has a pronounced grain with hard and soft areas. The cut that results may have rippled sides instead of straight.

# OPERATION

## DEPTH OF CUT

See Figure 16.

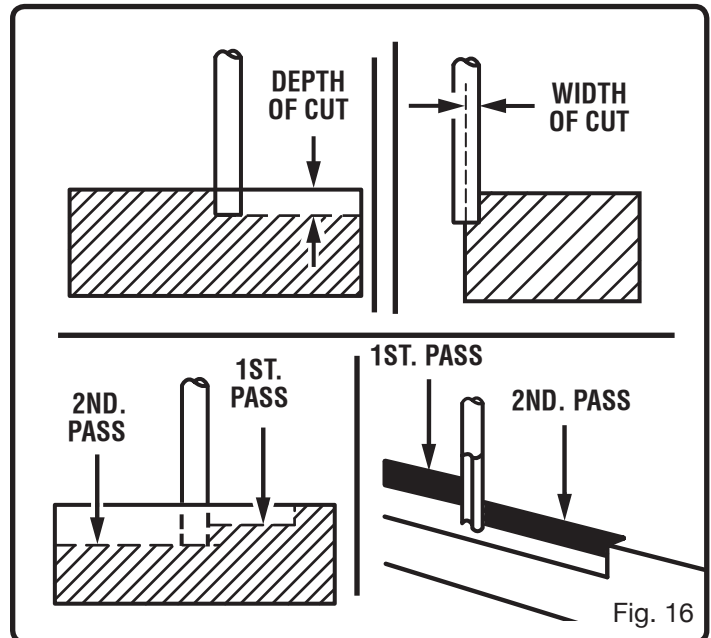
Depth of cut affects the rate of feed and the quality of a cut. Using the proper depth of cut can lessen the possibility of damage to the trimmer motor and bit.

A deeper cut requires a slower feed than a shallow one. Making a cut that is too deep will slow the feed so that the bit is scraping, rather than cutting, and is not recommended.

A too-deep cut can cause smaller bits to be broken off. Bits that are 1/16 in. in diameter are easily broken off when subjected to too much side thrust. A larger bit is not as likely to break, but attempting a cut that is too deep may result in a rough cut, and may make it difficult to guide and control the bit as desired.

It is necessary that you do not exceed 1/8 in. depth of cut in a single pass, regardless of the bit size or the softness or condition of the workpiece. This will result in a higher quality cut.

To make deeper cuts, it is necessary to make as many successive passes as required, lowering the bit 1/8 in for each new pass. To save time, perform all the cutting necessary at one depth setting, then lower the bit for the next pass. This will assure uniform depth when the final pass is completed.



### **⚠ WARNING:**

If the desired depth of cut is greater than can be safely cut in one pass, make cuts in two or more passes. Do not remove more than 1/8 in. in a single pass. Excessive depth of cut can result in loss of control and the possibility of serious personal injury.

# MAINTENANCE

## WARNING:

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

## WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

## WARNING:

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

## 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.

## BATTERIES

The battery pack for this tool is equipped with nickel-cadmium rechargeable batteries. Length of service from each charging will depend on the type of work you are doing.

The batteries in this tool have been designed to provide maximum trouble-free life. However, like all batteries, they will eventually wear out. **Do not** disassemble battery pack and attempt to replace the batteries. Handling of these batteries, especially when wearing rings and jewelry, could result in a serious burn.

To obtain the longest possible battery life, we suggest the following:

- Remove the battery pack from the charger once it is fully charged and ready for use.

For battery storage longer than 30 days:

- Store the battery pack where the temperature is below 80°F.
- Store battery packs in a “discharged” condition.

## 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 a Ryobi Authorized Service Center.

## ADJUSTING TENSION ON THE DEPTH ADJUSTMENT LATCH

With use, the depth adjustment latch may loosen. Periodically check the latch and adjust it when necessary.

- Turn the switch to OFF and remove the battery pack from the tool.
- Open the depth adjustment latch.
- Using the adjusting wrench provided, tighten the hex nut by turning it clockwise. Do not overtighten.
- Close the latch and assure the latch is securely tightened by checking the sub-base assembly. It should not move.

## BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING



To preserve natural resources, please recycle or dispose of batteries properly.

This product contains nickel-cadmium batteries. Local, state or federal laws may prohibit disposal of nickel-cadmium batteries in ordinary trash.

Consult your local waste authority for information regarding available recycling and/or disposal options.

## WARNING:

Upon removal, cover the battery pack’s terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Nickel-cadmium batteries must be recycled or disposed of properly. Also, never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

# ACCESSORIES

Look for these accessories at the service center:

- Woodworking Sub-base .....200334001



**WARNING:**

Current attachments and accessories available for use with this tool are listed above. Do not use any attachments or accessories not recommended by the manufacturer of this tool. The use of attachments or accessories not recommended can result in serious personal injury.



# OPERATOR'S MANUAL

## 18 VOLT TRIMMER

### P600

**⚠ WARNING:**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

#### • SERVICE

Now that you have purchased your tool, should a need ever exist for repair parts or service, simply contact your nearest Authorized Service Center. Be sure to provide all pertinent facts when you call or visit. Please call 1-800-525-2579 for your nearest Authorized Service Center. You can also check our web site at [www.ryobitools.com](http://www.ryobitools.com) for a complete list of Authorized Service Centers.

#### • MODEL NO. AND SERIAL NO.

The model number of this tool will be found on a plate attached to the motor housing. Please record the model number and serial number in the space provided below.

#### • HOW TO ORDER REPAIR PARTS

When ordering repair parts, always give the following information:

- MODEL NUMBER \_\_\_\_\_ P600 \_\_\_\_\_
- SERIAL NUMBER \_\_\_\_\_

Ryobi® is a registered trademark of Ryobi Limited used under license.

### ONE WORLD TECHNOLOGIES, INC.

1428 Pearman Dairy Road, Anderson, SC 29625

Phone 1-800-525-2579

[www.ryobitools.com](http://www.ryobitools.com)