

Your saw 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.

## SAVE THIS MANUAL FOR FUTURE REFERENCE

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## FUNCTIONAL DESCRIPTION

#### FOREWORD

The RIDGID® Model R4850 is a 13 inch (330mm) Portable Planer that has a cutting capacity of 13 inch (330mm) wide, 6 inch (152mm) thick and 1/8 inch (3.2mm) deep. This machine has a powerful 15 amp 120 volt motor with a three-knife cutterhead.

**NOTICE:** The cover illustration shows the current production model configuration. All other illustrations contained in the manual are representative only and may not depict the actual labeling or accessories included. These are intended to illustrate technique only.

#### MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 Hz alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

Specifications:				
Model: R4850				
Supply Voltage:	120 V AC~			
Current:	15 A			
Frequency:	60 Hz			
No Load RPM:	10,000/min			

## **FEATURES**



## **IMPORTANT SAFETY INSTRUCTIONS**

AWARNING: READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING ANY TOOL OR EQUIPMENT. ALWAYS FOLLOW BASIC SAFETY PRECAUTIONS TO REDUCE THE RISK OF PERSONAL INJURY. IMPROPER OPERATION, MAINTENANCE, OR MODIFICATION OF TOOLS OR EQUIPMENT COULD RESULT IN SERIOUS INJURY AND PROPERTY DAMAGE. THERE ARE CERTAIN APPLICATIONS FOR WHICH TOOLS AND EQUIPMENT ARE DESIGNED. DO NOT MODIFY AND/OR USE THIS PRODUCT FOR ANY APPLICATION OTHER THAN THAT FOR WHICH IT WAS DESIGNED.



If you have any questions or concerns relative to the use of your tool or the contents of this manual, stop using the tool and contact RIDGID® Customer Service (toll free) 1-888-359-4778.

- Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851or online at www.powertoolinstitute.com.
- National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201.
- American National Standards Institute, 25 West 43rd Street, 4 floor, New York, NY 10036 www.ansi.org ANSI 01.1 Safety Requirements for Woodworking Machines.
- U.S. Department of Labor regulations www.osha.gov.

## **SAFETY GUIDELINES - DEFINITIONS**

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.

A DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

AWARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

ACAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Indicates a practice not related to personal injury which, if not avoided, may result in property damage.

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

SYMBOL	NAME	DESIGNATION/EXPLANATION		
	Safety Alert	Indicates a potential personal injury hazard.		
B.	Read Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.		
	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1.		
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.		
	Wet Conditions Alert	Do not expose to rain or use in damp locations.		
	Pinch Warning	Always watch for movement paying extra attention to potential areas where pinching could occur.		
V	Volts	Voltage		
А	Amperes	Current		
Hz	Hertz	Frequency (cycles per second)		
min	Minutes	Time		
~/AC	Alternating Current	Type of current		
n <sub>o</sub>	No Load Speed	Rotational speed, at no load		
/min	Per Minute	Revolutions, strokes, surface speed, orbits, etc., per minute		
Lbs	Pounds	Unit of weight		
Kg	Kilograms	Unit of weight		
RPM	Revolutions Per Minute	Speed of rotation of machine		
PH:1	Phase 1	This is a 1 phase motor		
	Double Insulation	To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. <b>DO NOT</b> change the plug in any way.		

## **GENERAL SAFETY RULES**

#### **AWARNING:** Failure to follow these rules may result in serious personal injury.

- For your own safety, read the instruction manual before operating the machine. Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
- 2. Wear eye and hearing protection and always use safety glasses. Everyday eyeglasses are not safety glasses. Use certified safety equipment. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
- 3. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip protective footwear is recommended. Wear protective hair covering to contain long hair.
- 4. Do not use the machine in a dangerous environment. The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
- Do not operate electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors and switches in these tools may spark and ignite fumes.
- 6. Maintain all tools and machines in peak condition. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- 7. Check for damaged parts. Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged should be properly repaired or replaced with RIDGID® or factory authorized replacement parts. Damaged parts can cause further damage to the machine and/or injury.
- 8. Keep the work area clean. Cluttered areas and benches invite accidents.
- **9. Keep children and visitors away**. Your shop is a potentially dangerous environment. Children and visitors can be injured.
- **10.** Reduce the risk of unintentional starting. Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury. Do not touch the plug's metal prongs when unplugging or plugging in the cord.
- **11. Use the guards**. Check to see that all safety devices are in place, secured, and working correctly to prevent injury.
- 12. Remove adjusting keys and wrenches before starting the machine. Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
- **13. Use the right machine**. Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
- 14. Use recommended accessories. The use of accessories

and attachments not recommended by RIDGID® may cause damage to the machine or injury to the user.

- **15. Use the proper extension cord**. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- **16.** Secure the workpiece. Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
- 17. Feed the workpiece against the direction of the rotation of the blade, cutter, or abrasive surface. Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
- **18. Do not force the workpiece on the machine**. Damage to the machine and/or injury may result.
- **19. Do not overreach**. Loss of balance can make you fall into a working machine, causing injury.
- **20.** Never stand on the machine. Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- **21.** Never leave the machine running unattended. Turn the power off. Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
- 22. Turn the machine "OFF", and disconnect the machine from the power source before installing or removing accessories, changing cutters, adjusting or changing set-ups. When making repairs, be sure to lock the start switch in the "OFF" position. An accidental start-up can cause injury.
- 23. Make your workshop childproof with padlocks, master switches, or by removing starter keys. The accidental start-up of a machine by a child or visitor could cause injury.
- 24. Stay alert, watch what you are doing, and use common sense. Do not use the machine when you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in injury.
- 25. **AWARNING:** Use of this tool can generate and disperse dust or other airborne particles, including wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

## ADDITIONAL SPECIFIC SAFETY RULES

#### **AWARNING:** FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

- 1. DO NOT OPERATE THIS MACHINE until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
- 2. OBTAIN ADVICE from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
- FOLLOW ALL WIRING CODES and recommended 3. electrical connections to prevent shock or electrocution.
- 4. KEEP KNIVES SHARP and free from rust and pitch. Dull or rusted knives work harder and can cause kickback.
- **NEVER TURN THE MACHINE "ON"** before clearing the table 5. of all objects (tools, scraps of wood, etc.). Flying debris can cause serious injury.
- NEVER TURN THE MACHINE "ON" with the work-piece 6 contacting the cutterhead. Kickback can occur.
- 7. SECURE THE MACHINE TO A SUPPORTING SURFACE to prevent the machine from sliding, walking or tipping over.
- PROPERLY SECURE THE KNIVES IN THE CUTTER- HEAD 8. before turning the power "ON". Loose blades may be thrown out at high speeds causing serious injury.
- DO NOT PLACE THE POWER CORD under the cutterhead 9 when moving or storing.
- 10. AVOID AWKWARD OPERATIONS AND HAND POSITIONS. A sudden slip could cause a hand to move into the knives.
- 11. KEEP ARMS, HANDS, AND FINGERS away from the cutterhead, the chip exhaust opening, and the feed rollers to prevent severe cuts.
- 12. NEVER REACH INTO THE CUTTERHEAD AREA while the machine is running. Your hands can be drawn into the knives.
- 13. DO NOT STAND IN LINE OF THE WORKPIECE. Kickback can cause injury.
- 14. ALLOW THE CUTTERHEAD TO REACH FULL SPEED before feeding a workpiece.
- 15. WHEN PLANING BOWED STOCK, place the concave (cup down) side of the stock on the table and cut with the grain

to prevent kickback.

- 16. DO NOT FEED A WORKPIECE that is warped, contains knots, or is embedded with foreign objects (nails, staples, etc.). Kickback can occur.
- 17. DO NOT FEED A SHORT, THIN, OR NARROW WORKPIECE INTO THE MACHINE. Your hands can be drawn into the knives and/or the workpiece can be thrown at high speeds. See the "OPERATION" section of this instruction manual for details.
- 18. DO NOT FEED A WORKPIECE into the out-feed end of the machine. The workpiece will be thrown out of the opposite side at high speeds.
- **19. REMOVE SHAVINGS ONLY** with the power "OFF" to prevent serious injury.
- 20. USE FOR WOOD ONLY. Do not plane man-made materials.
- 21. PROPERLY SUPPORT LONG OR WIDE WORKPIECES. Loss of control of the workpiece can cause serious injury.
- 22. NEVER PERFORM LAYOUT, ASSEMBLY or set-up work on the table/work area when the machine is running. Serious injury will result.
- 23. TURN THE MACHINE "OFF", DISCONNECT IT FROM THE POWER SOURCE, and clean the table/work area before leaving the machine. LOCK THE SWITCH IN THE "OFF" **POSITION** to prevent unauthorized use. Someone else might accidentally start the machine and cause injury to themselves or others.
- 24. ADDITIONAL INFORMATION regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www. powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor Regulations.

#### SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

## **PROPOSITION 65 WARNING:**

AWARNING: Dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Some examples are:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products
- Asbestos dust
- 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 dust masks that are specifically designed to filter out microscopic particles.

Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities.

Wear protective clothing and wash exposed areas with soap and water.

## ADDITIONAL SPECIFIC SAFETY RULES

#### POWER SOURCE

This saw is equipped with a 15-amp motor for use with a 120-volt, 60-HZ alternating current.

For voltage, the wiring in a shop is as important as the motor's rating. A line intended only for lights may not be able to properly carry the current needed for a power tool motor; wire that is heavy enough for a short distance may be too light for a greater distance; and a line that can support one power tool may not be able to support two or three. A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20-amp time lag fuse and/or circuit breaker. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding-type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch(es) is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. A substantial voltage drop will cause a loss of power and overheat the motor. It may also damage the machine.

**A** DANGER: DO NOT expose the machine to rain or operate the machine in damp locations.

#### **GROUNDING INSTRUCTIONS**

**ADANGER:** This machine must be grounded while in use to protect the operator from electric shock.

#### 1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DO NOT modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use **ONLY** 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug.

Repair or replace damaged or worn cord immediately.

ADANGER: In all cases, make certain that the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

#### **EXTENSION CORDS**

**ADANGER:** NEVER use a damaged extension cord. Check extension cords before each use. If damaged, replace immediately. Touching the damaged area could cause electrical shock resulting in serious injury.

**ACAUTION:** KEEP the extension cord clear of the work area. Position the cord so it will not get caught on lumber, tools or other obstructions

**AWARNING:** Use proper extension cords. Make sure your extension cord is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure

to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. The table below shows the maximum gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord. **ONLY** round, jacketed cords listed by Underwriter's Laboratories

(UL) should be used.

** Ampere rating (on tool data label)				
12A- 16A				
Cord Length	Wire Size			
25'	14 AWG			
50'	12 AWG			
** Used on 12 gauge - 20 amp circuit				
NOTE: AWG = American Wire Gauge				

## UNPACKING

### UNPACKING AND CLEANING

**ACAUTION** This machine weighs about 75 pounds. Use a helper to lift or move it.

Carefully unpack the machine and all loose items from the shipping container. Figure 2 illustrates the planer and all loose items supplied with your machine. Refer to the section of this manual titled **"REPLACING KNIVES"** to remove the cutterhead guard. Remove any rust-preventative oil from unpainted surfaces using a soft cloth moistened with mineral spirits, paint thinner or denatured alcohol.

**ACAUTION** DO NOT use highly volatile solvents such as gasoline, naphtha, acetone or lacquer thinner for cleaning your machine.

After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

**ACAUTION** Take care when you clean the cutterhead. The knives in the cutterhead are very sharp. After cleaning the cutterhead, replace the cutterhead guard.





### PACKAGE CONTENTS



PC2

PC3

Dust Collection Attatchment

Cutterhead Height Adjusting Handle



## ASSEMBLY

**AWARNING:** To reduce the risk of injury, turn unit off and disconnect the machine from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

#### ASSEMBLY TOOLS REQUIRED

T-handle Torx wrench PC5 (Supplied)

## HOW TO ATTACH THE CUTTERHEAD LOCK HANDLE

 Use the supplied T-handle Torx wrench PC5 to attach the cutterhead lock handle PC4 Figure 3 to the shaft
 A with the PC5 M6 x 20mm Torx Head Screw and PC8 M6 Split Lock Washer.



FIGURE 3

#### HOW TO ATTACH THE CUTTERHEAD HEIGHT ADJUSTING HANDLE

- 1. Attach the cutterhead height adjusting handle PG to the shaft B, with the flat edge on the shaft engaged with the flat edge in the handle.
  - Fasten the cutterhead height adjusting handle to the shaft using the PC6 M6 x 20mm Torx Head Screw and M6 Split Lock Washer PC8 with the supplied T-handle Torx wrench PC5.
- **NOTE:** The cutterhead height adjusting handle is supplied with markings on the dial to make your cuts accurate.



FIGURE 4

## ASSEMBLY

#### HOW TO PREPARE FOR DUST MANAGEMENT

You have two options for dust management. The first is the dust deflector and the second is the dust collection attachment to attach your machine to a dust collector.

**Note:** The dust deflector comes factory installed and can be used if the user elects not to use a dust collector system.

#### How to Install the Dust Collection Attatchment

## **AWARNING:** Disconnect the machine from the power source.

- **1.** Using the cutterhead height adjusting handle, raise the main housing up high enough to allow clearance for the T-handle torx wrench.
- Using the wrench provided, remove the two M6 x 20mm Torx screws and flat washers PC6 that secure the dust deflector. Save these for step 4. (See Figures 5 & 6)
- **3.** Remove the dust deflector **FII**. See Figure 7.
- Align the four slots in the dust collection attachment with holes in the frame (Figure 8). Secure using four M6 x 20mm Torx screws and washers PCG (two from step 2).
- **5.** Reverse the procedure for installing the dust deflector. Install the dust deflector with the label up and curved lip pointing down.
- **6.** Store the two extra mounting screws with the dust collection attachment.

**ACAUTION** When using the dust collection attachment, **DO NOT** operate the unit without a hose connected and a dust collector in operation. The dust collection attachment is designed to accept a 4 inch hose.



FIGURE 5



FIGURE 6



FIGURE 7



FIGURE 8

## **ASSEMBLY**

#### HOW TO FASTEN THE PLANER TO A SUPPORTING SURFACE

**ACAUTION** Before operation, secure the planer to the supporting surface. Four holes (two of which are shown at Figure 9) are provided for this purpose.

**ACAUTION** Operate the planer on a flat, level surface.

1. Four attachment holes are provided for mounting the planer to a stand or work surface. These holes are located under the in-feed and out-feed tables as shown in Figure 9.



FIGURE 9

## **OPERATION**

#### **OPERATIONAL CONTROLS AND ADJUSTMENTS**

#### How to Start and Stop the Planer

1. To turn the planer "ON", lift the paddle [19]. To turn the tool "OFF", push the paddle down ,as shown in Figure 10.

**IMPORTANT:** When the machine is not in use, the switch should be locked in the "OFF" position (Figure 11) to prevent unauthorized use. Place a padlock (A) with a 1/4 inch (6.3mm) diameter shackle through the hole on the left side of the switch cover and through the hole in the switch paddle. Lock the padlock. See Figure 12.

#### **A**WARNING: Ensure that the lock prevents the switch from being turned on.



**FIGURE 10** 



**FIGURE 11** 



FIGURE 12

#### How to Use the Cutterhead Lock

The cutterhead lock **P24** Figure 13 helps to eliminate snipe in the board that is being planed. Snipe can also be eliminated by butting boards end to end and feeding them through the planer. Long boards should **ALWAYS** be supported, when feeding them through the planer to help eliminate snipe.

**1. NOTE:** To lock the cutterhead, turn handle clockwise. To unlock, turn handle counterclockwise.



FIGURE 13

#### How to Adjust the Head Assembly

The head assembly contains the cutterhead, feed rollers, chip deflector and motor. Raising and lowering the head assembly controls the depth of cut.

 To adjust the head assembly, unlock the cutterhead lock handle PC4 Figure 13. Turn the cutterhead height adjusting handle clockwise to raise or counter-clockwise to lower the cutterhead. One revolution of handle PC3 Figure 14 will move the cutterhead up or down 1/16 inch (1.6mm).

#### How to Use the Material Removal Gauge

See Figure 15

Your planer is equipped with a material removal gauge (A). It is used to indicate the amount of wood that will be removed in one pass with the carriage set at its current height. The material removal gauge reads across the entire width of the planer head.

- 1. Slide approximately 3 inches of the workpiece under the carriage.
- **2.** Be sure that the workpiece is lying flat against the table of the planer. If the workpiece is inserted at an angle, the reading may be inaccurate.
- Lower the carriage on the workpiece until the material removal bar engages the wood. You will see the red arrow moving up the scale to indicate the amount to be removed with the carriage at that height.
- **4.** Adjust the carriage height until the desired depth of cut appears on the gauge.
- **5.** Note this depth as you may have to back the cutterhead off the board to allow you to remove it. Once this is done. Pull the material out from under the carriage and reset the cutterhead to the desired depth.
- **6.** Turn the unit on and feed your material into the cutter head.



FIGURE 14



FIGURE 15

**NOTE: DO NOT** exceed the recommended depth of cut for various widths of material, shown in the "**RECOMMENDED DEPTH OF CUT**" section below.



G: DO NOT turn the unit "ON" with the workpiece in position.

#### **RECOMMENDED DEPTH OF CUT**

**NOTE:** One revolution of the cutterhead height adjusting handle will move the cutterhead up or down 1/16 inch (1.6mm).

You can make a 1/8 inch (3.2mm) depth-of-cut in soft woods up to 6 inch (152mm) wide and in hard woods up to 4 inch (102mm) wide. (Figure 16)

For 6 inch (152mm) through 13 inch (330mm) wide soft wood, use a maximum depth-of-cut of 1/16 inch (1.6mm). For 6 inch (152mm) through 13 inch (330mm) wide hard wood, use a maximum depth-of-cut of 3/64 inch (1.2mm) (Figure 16).

**IMPORTANT:** A shallow depth-of-cut will produce a better finish.



FIGURE 16

#### How to Use the Depth Stop

Your planer is equipped with a depth stop dial <sup>[6]</sup> as shown in Figure 17 for repetitive planing. Any thickness between 1/8 inch and 1 1/4 inch can be selected using the scale on the depth stop. Detents are provided at 1/8 inch, 1/4 inch, 1/2 inch, 3/4 inch, 1 inch, and 1 1/4 inch.

To set the minimum depth to which the cutterhead can travel with the depth stop:

- **1.** Check to see that the cutterhead is set above 1 1/4 inch before trying to set the depth stop.
- 2. Make sure dial [7] is unlocked by rotating the locking knob [8] counterclockwise.
- **3.** Turn the dial **F7** to the desired thickness setting so that it aligns with the indicator line **A** as shown in Figure 17.
- **4.** Lock the gauge in place by turning the locking knob Clockwise, as shown in Figure 17.
- **5.** Plane the workpiece at desired increments until the correct final thickness is achieved.

**NOTE: DO NOT** use force to lower the carriage below the level that the depth stop indicates. This will result in permanent damage to the height adjustment system on your planer.



FIGURE 17

#### How to Use the Adjustable Indexing Ring

The cutterhead height adjusting handle has an adjustment ring Figure 18. The Adjustable Index Ring is best utilized after the initial cut has been made. To use the adjustment ring to make fine adjustments:

- **1.** Once the initial cut has been made and fine tuning is required, measure the thickness of a planed board.
- 2. Set the ring A Figure 18 to align the zero with the arrow B.
- **3.** Rotate the handle to the desired depth of cut, as indicated on the ring. Each indicator on the ring is equivalent to 1/128 inch (.2mm) for making minute cuts.
- **4.** Plane the workpiece and then repeat this process until you approach the final desired thickness.





#### **OPERATION**

Follow these few steps to achieve the best results.

- 1. True One Face Feed one face of the board over a jointer, making thin cuts with each pass, until the entire surface is flat.
- 2. Plane to Thickness Place the side you just surfaced in **STEP 1** face down and feed the board through the planer, plane until this side is flat. Then plane both sides of the board until you are satisfied with the thickness, making thin cuts, alternating sides with each pass. If, during the planing operation, you notice the board twisting, warping or bowing, repeat **STEP 1** and true one face.
- 3. When planing long stock, provide additional support to the in-feed and out-feed end of the workpiece.
- 4. ALWAYS engage the cutterhead lock before planing. Plane with the grain ONLY, and keep table clean. Occasionally, wax the table surface to reduce friction.
- 5. Cross-cut the workpiece to its final length.

NOTE: Feed the wood through the planer at different places on the table to help eliminate uneven wear of the knives.

#### **Proper Planing Techniques**

- 1. Lower the carriage to the desired height for your first pass.
- 2. Turn the unit on and feed the material into the feed rollers.
- 3. Examine the finished cut and adjust the carriage to the appropriate height for your next pass.
- **4.** Feed workpieces through alternating areas of the planer for even blade wear not just through the center of the machine. One way to do this is to start with the workpiece on the left for the first pass, in the middle on the next and on the right side for third pass and then repeat.

NOTE: Flip the board over between each pass.

**AWARNING DO NOT** turn the unit on with the workpiece inserted under cutterhead. Wait until the roller and cutterhead are up to full speed before feeding your material into the machine.

For best results, plane both sides of the workpiece to reach desired thickness. For example, if you need to remove 1/8 inch from your workpiece, remove 1/16 inch from each side. This not only allows the workpiece to dry with an even moisture content, it also produces finer cuts.

**AWARNING** Plane **ONLY** wood that is free from foreign objects, with no loose knots and as few tight knots as possible. **DO NOT** plane wood that is severely warped, twisted, knotted or bowed.

**AWARNING DO NOT** place your body between the rear of the planer and a stationary object while material is feeding. Serious injury could result.

#### Minimum/Maximum Width/Height/Depth

**NOTE: ALWAYS** plane in the direction of the grain. Support the workpiece adequately at all times. Planing material less than 3/4 inch wide is not recommended. If you must plane narrow material, group several pieces together and plane them as one wide workpiece whenever possible. The maximum depth of cut your planer can take in one pass is 1/8 inch (on material less than 6 inch wide). **NEVER** attempt to modify your planer to take a deeper cut. Follow the recommended depth/width of cut guidelines shown in Figure 16 for best results.

#### Snipe

Snipe is a depression made when an unsupported end of your material drops toward the floor, causing the opposite end to lift up into the cutter head.

#### **To Avoid Snipe**

Feed the workpiece into the planer so it is level and remains flat against the table at all times.

Keep the workpiece level throughout planing operation by receiving or "catching" it from the rear of the planer. If you are planing material that is especially long, the use of additional material support is recommended.

#### Twisted, Cupped and Bowed Wood

If both sides of your material are very rough or if the material is cupped, bowed or twisted, your planer may not produce the desired result. Ideally, you should have at least one flat surface/face on your material before you plane. Your thickness planer will work best with material that has been run through a jointer to produce one flat surface. If you **DO NOT** have at least one flat surface or a jointer, see the following recommendations.

#### **To Plane Twisted Wood**

**AWARNING:** Twisted wood may jam your planer. If a jam occurs, turn the power "OFF", disconnect the power supply and raise the cutterhead to release the workpiece from the cutter.

If your material is ONLY slightly twisted, plane both sides alternating from one to the other until the desired thickness is reached.

#### **To Plane Cupped Wood**

To obtain the best possible results with cupped wood, rip the material down the middle and plane it as two separate pieces. Ripping the material reduces the severity of the cup and allows the machine to deliver better results. Understand that you will have to remove more material on cupped wood to achieve the desired thickness than you would on a normal board. If ripping the material is not an option, plane one side of the material until flat, then plane the opposite side until it is also flat. Start with the cupped portion of the board facing down. **NOTE: DO NOT** flip the board back and forth between each pass as recommended by the general planing directions.

#### To Plane Bowed Wood

The feed rollers and cutter head in your planer will push the bow out of the material as it feeds. However, when the material exits the planer, the pressure of the rollers and cutterhead will release allowing the wood to spring back into a bowed formation. To properly remove the bow, use a jointer.

## MAINTENANCE/ADJUSTMENT

**AWARNING:** To reduce the risk of injury, turn unit off and disconnect the machine from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

**AWARNING:** Wear gloves when you remove the knives for sharpening or replacement. The knives in this planer are very sharp.

- **AWARNING:** Disconnect the machine from the power source.
- **AWARNING:** The knives are sharp. Be careful when removing, handling, or installing knives.

#### HOW TO CHECK, ADJUST, CLEAN AND REPLACE KNIVES

The knives supplied with your planer are double edged and reversible so that you can turn the knives end-for-end when one edge becomes dull or chipped. To change the knives see Figures 19 - 22.

- 1. Raise the cuter head assembly to 4 inch (102mm) on the "Scale and Pointer".
- Remove the screws
   Pull the dust deflector or dust collection attatchment whichever is installed B straight out.
- **3.** Insert the supplied wrench **PE5** into the hex hole. Rotate the cutterhead until the cutterhead lock engages.
- 4. Remove the seven screws **E** and use magnetic end of the wrench to remove the hold-down bar **F**.



FIGURE 19



FIGURE 20

## **MAINTENANCE/ADJUSTMENT**

- 5. Place the magnetized end of the wrench PCD at the center of the knife. Lift the wrench until the knife
  H separates from the pins. Remove the knife.
- Repeat steps 3 through 5 to remove the other two knives. Press down the cutterhead lock release and use the supplied wrench PC5 to rotate the cutterhead until the lock engages and the next knife is in position to be removed.
- 6. IMPORTANT: After removing all knives from cutterhead, carefully set them aside. Using a cloth rag and isopropyl alcohol, clean the cutterhead, knives and hold-down bars free of gum, tar and pitch residue. Take special care to clean the cutterhead under the knife area and the cutterhead radius in front of the knife area. Doing this will increase the life of your planer.
- 7. Take this time also to clean the rollers U Figure 23.
- **8.** Your unit is equipped with double-edged knives. If the second edge of the knife has not been used, rotate the knife 180 degrees and replace on the cutterhead. Replace the knives if both sides have been used.
- **9.** Attach the hold-down bar **F** Figure 21 that you removed in **STEP 4.** Tighten all fasteners securely.
- **10.** Depress the cutterhead lock release and rotate the cutterhead to the next empty position until the cutterhead lock engages.
- **11.** Repeat steps 9 through 11 to replace the other knives.
- **12.** Reattach the dust deflector or dust collection port.



FIGURE 21



**FIGURE 22** 



FIGURE 23

## **MAINTENANCE/ADJUSTMENT**

#### How to Adjust the In-Feed and Out-Feed Tables

Your unit has been factory set to eliminate snipe. If your unit loses its adjustment and causes snipe, you can adjust the in-feed and out-feed tables to minimize this condition.

- 1. Raise the cutter head.
- **2.** Place a dime A Figure 24 at each end of the Wear Table (in-feed and out-feed).
- **3.** Place a straight edge **B** across the two dimes. Extend the straight edge past the edges of the in-feed and outfeed tables.
- **4.** If your tables are properly adjusted, the straight edge will touch both of the dimes and both the edges of the tables.
- 5. If your table needs adjustment, loosen the lock nuts
  Figure 25 on the table height-adjustment screws
  Adjust the screws up or down to achieve the desired table height.
- **6.** Make sure that both height-adjustment screws contact the bottom of the table after adjustment.
- 7. Re-tighten lock nuts.



FIGURE 24



FIGURE 25

## **MAINTENANCE/ADJUSTMENT**

#### How to Calibrate the Depth Adjustment Scale

The depth adjustment scale A Figure 26 on your planer is set at the factory. However, with extended use, the depth adjustment scale could show an incorrect measurement. To check the depth adjustment scale, plane a piece of scrap wood, noting the measurement on the depth adjustment scale. Measure the finished thickness of the workpiece. When measuring the thickness, measure away from the ends. Beware of snipe. Measuring the snipe could result in inaccurate measurements. If the thickness of the workpiece does not match the reading on the depth adjustment scale, loosen the two screws B on the red indicator. Adjust the pointer up or down until its reading matches the finished thickness of the workpiece. Securely retighten the screws.

## Wear Table and In-Feed/ Out-Feed Table Maintenance

Keep the table clean and free from oil, grease, and pitch. Treat the table with paste wax to help maintain its smooth finish.

#### **Circuit Breaker Reset Button**

Your planer is equipped with an 18 amp circuit breaker. If your planer becomes overloaded and stops operating, turn off the planer, let the unit sit for 2 minutes and press the reset button as shown in Figure 27 before you resume working.

# **WARNING:** To prevent the planer from starting unexpectedly if power is interrupted by a circuit breaker trip, make sure the switch is in the "OFF" position before restoring power.

**NOTE:** Circuit breaker overload is often the result of dull knives. Change your knives on a regular basis to avoid tripping your breaker. Check your knives before re-setting the circuit breaker and continuing to plane.

#### **Brush Change**

Your planer is equipped with brush caps Figure 28 that are external to the motor. If your brushes need to be replaced, begin by acquiring a new set from a RIDGID® service center or a dealer authorized to service RIDGID® products. Use **ONLY** identical RIDGID® brushes.



FIGURE 26



FIGURE 27



#### **Replacing the Drive Belt**

FIGURE 28

Drive belts are available at extra cost at RIDGID® authorized service centers. Replacement of the drive belt should be performed by qualified service personnel.

#### **Keep Machine Clean**

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. **NEVER** use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

## **AWARNING:** Wear certified safety equipment for eye, hearing and respiratory protection while using compressed air.

#### Lubrication

Apply household floor paste wax to the machine table, extension table or other work surface weekly. Or use a commercially available protective product designed for this purpose. Follow the manufacturer's instructions for use and safety.

## TROUBLESHOOTING

For assistance with your machine, visit our website at **www.RIDGID.com** for a list of service centers or call RIDGID® Stationary Power Tool Technical Service at (toll free) 1-888-359-4778.

### **FAILURE TO START**

If your machine fails to start, check to make sure the prongs on the cord plug are making good contact in the receptacle, and check reset button on power switch housing. Also, check for blown fuses or open circuit breakers in your power line.

Problem	Possible Cause	Solution
Snipe (uneven cut on end of boards)	<ol> <li>Dull cutterhead blades</li> <li>Incorrect butted stock</li> <li>Unit not mounted properly</li> </ol>	<ol> <li>Replace or flip cutterhead blades.</li> <li>Butt pieces end to end as you feed them into the planer.</li> <li>Tighten mounting bolts.</li> </ol>
Torn grain	<ol> <li>Cutterhead depth too deep</li> <li>Workpiece fed against the grain</li> <li>Dull cutterhead blades</li> </ol>	<ol> <li>Reduce the depth of cut.</li> <li>Feed opposite end of board first.</li> <li>Replace or flip cutterhead blades.</li> </ol>
Fuzzy/rough grain	<ol> <li>Moisture content high in workpiece</li> <li>Dull cutterhead blades</li> <li>Cutterhead depth too deep</li> <li>Incorrect feeding spread</li> </ol>	<ol> <li>Make sure wood is dry prior to planing.</li> <li>Replace or flip cutterhead blades.</li> <li>Reduce the depth of cut.</li> <li>Check for proper power supply.</li> <li>Check cord and plug for damage.</li> <li>Check motor brush condition.</li> </ol>
Uneven depth of cut	<ol> <li>Cutterhead not level with Wear Table</li> <li>Inconsistent pressure from rollers</li> <li>Rollers have uneven wear on them</li> </ol>	<ol> <li>Adjust the elevation nuts.</li> <li>2-3. Contact local authorized Service Center.</li> </ol>
Board thickness does not match depth scale indicator	<ol> <li>Depth scale incorrect</li> <li>Tables dirty</li> </ol>	<ol> <li>Adjust depth scale.</li> <li>Clean and wax the tables.</li> </ol>
Cutterhead height difficult to adjust	<ol> <li>Dirty spindle</li> <li>Worn chain</li> </ol>	<ol> <li>Clean and lubricate the spindle.</li> <li>Contact local authorized Service Center.</li> </ol>
Will not start	<ol> <li>Not plugged in</li> <li>Blown circuit</li> <li>Motor Failure</li> <li>Loose wire</li> <li>On/Off switch not working</li> <li>Motor overload</li> </ol>	<ol> <li>Check power source.</li> <li>Replace fuse, reset breaker, or contact a certified electrician.</li> <li>Contact local authorized Service Center.</li> </ol>
Interrupted operation	<ol> <li>Unit overloaded</li> <li>Circuit overloaded</li> </ol>	<ol> <li>Reduce the load on the unit.</li> <li>Operate on independent circuit not connected to other appliances.</li> </ol>

## ACCESSORIES

A complete line of accessories is available from your RIDGID® Supplier, RIDGID® Factory Service Centers, and RIDGID® Authorized Service Centers. Please visit our Web Site <u>www.RIDGID.com</u> for an online catalog or for the name or your nearest supplier.

**AWARNING:** Since accessories other than those offered by RIDGID® have not been tested with this product, use of such accessories could be hazardous. For safest operation, only RIDGID® recommended accessories should be used with this product.

#### RIDGID® STATIONARY POWER TOOL 5 YEAR LIMITED SERVICE WARRANTY

Proof of purchase must be presented when requesting warranty service.

Limited to RIDGID<sup>®</sup> stationary power tools purchased 2/1/21 and after. This product is manufactured by DPEC. The trademark is licensed from RIDGID<sup>®</sup>, Inc. All warranty communications should be directed to Customer Service attn: RIDGID<sup>®</sup> Stationary Power Tool Technical Service at (toll free) 1-888-359-4778.

#### 90-DAY SATISFACTION GUARANTEE POLICY

During the first 90 days after the date of purchase, if you are dissatisfied with the performance of this RIDGID<sup>®</sup> Stationary Power Tool for any reason you may return the tool to the dealer from which it was purchased for a full refund or exchange. To receive a replacement tool you must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the 5 YEAR service warranty period.

#### WHAT IS COVERED UNDER THE 5 YEAR LIMITED SERVICE WARRANTY

This warranty on RIDGID® Stationary Power Tools covers all defects in workmanship or materials in this Ridgid® tool for five years following the purchase date of the tool. Warranties for other RIDGID® products may vary.

#### HOW TO OBTAIN SERVICE

To obtain service for this RIDGID® tool you must call RIDGID® Customer Service at (toll free) 1-888-359-4778 or email us at RidgidWoodworking@ridgidproducts.com. When requesting warranty service, you must present the original dated sales receipt. The authorized service center will repair any faulty workmanship, and either repair

or replace any part covered under the warranty, at our option, at no charge to you.

#### WHAT IS 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 defect resulting from misuse, abuse, neglect, alteration, modification or repair by other than an authorized service center for RIDGID® branded stationary power tools. Consumable accessories provided with the tool such as, but not limited to, blades, bits and sand paper are not covered.

RIDGID® MAKENO WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY OR PERFORMANCE OF ITS POWER TOOLS OTHER THAN THOSE SPECIFICALLY STATED IN THIS WARRANTY.

#### ADDITIONAL LIMITATIONS

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, that cannot be disclaimed under state law are limited to five years from the date of purchase. RIDGID<sub>®</sub> is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations 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.

DPEC 2651 New Cut Road Spartanburg, SC 29303

## **OPERATOR'S MANUAL**

## 13 inch Portable Planer R4850



#### **Customer Service Information:**

For parts or service, do not return this product to the store. Contact your nearest RIDGID<sub>®</sub> authorized service center. Be sure to provide all relevant information when you call or visit. For the location of the authorized service center nearest you, please call 1-888-359-4778 or email us at RidgidWoodworking@ridgidproducts.com.

#### MODEL NO.\*\_

\_SERIAL NO.\_\_

\*Model number on product may have additional letters at the end. These letters designate manufacturing information and should be provided when calling for service.

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