MODEL T33307
20V HAND PLANER
OWNER'S MANUAL
(For models manufactured since 06/22)

*Battery not included

#SSCS22314 PRINTED IN CHINA V1.06.22

******Keep for Future Reference******

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

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

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **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.

SECTION 1: SAFETY

⚠WARNING

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

⚠DANGER — **Indicates an imminent hazardous situation which, if not avoided, WILL result in death or serious injury.**

⚠WARNING — **Indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.**

⚠CAUTION — **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE — **This symbol is used to alert the user to useful information about proper operation of the equipment.**

⚠WARNING

Safety Instructions for Power Tools

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this power tool. When tool is not being used, disconnect power, and store in out-of-reach location to prevent unauthorized use—especially around children. Make workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use tools in areas that are wet, cluttered, or have poor lighting. Operating tools in these areas greatly increases risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of power tools. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

DISCONNECT POWER FIRST. Always disconnect tool from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.

⚠WARNING

ELECTRICAL SAFETY. Tool plug must match outlet. Double-insulated tools have a polarized plug (one blade is wider than the other), which must be plugged into a polarized outlet. Never modify plug. Do not use adapter for grounded tools. Use a ground fault circuit interrupter if operation is unavoidable in damp locations. Avoid touching grounded surfaces when operating tool.

WEARING PROPER APPAREL. Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control. Wear hard hat as needed.

HAZARDOUS DUST. Dust created while using tools may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, always wear a NIOSH-approved respirator, and connect tool to an appropriate dust collection device to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Never leave adjustment tools, chuck keys, wrenches, etc. in or on tool—especially near moving parts. Verify removal before starting!

INTENDED USAGE. Only use tool for its intended purpose. Never modify or alter tool for a purpose not intended by the manufacturer or serious injury or death may result!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating tool. Do not overreach! Avoid awkward hand positions that make tool control difficult or increase the risk of accidental injury.

SAFE HANDLING. Firmly grip tool. To avoid accidental firing, do not keep finger on switch or trigger while carrying.

FORCING TOOLS.. Use right tool for job, and do not force it. It will do job safer and better at rate for which it was designed.

SECURING WORKPIECE. When required, use clamps or vises to secure workpiece. This protects hands and frees both of them to operate tool.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Ensure they are properly installed, undamaged, and working correctly.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using tool if they become a distraction.

USE RECOMMENDED ACCESSORIES. Consult this manual or manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.

MAINTAIN WITH CARE. Keep cutting tool edges sharp and clean. Follow all maintenance instructions and lubrication schedules to keep tool in good working condition. A tool that is improperly maintained could malfunction, leading to serious personal injury or death. Only have tool serviced by qualified service-personnel using matching replacement parts.

CHECK DAMAGED PARTS. Regularly inspect tool for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating tool.

MAINTAIN POWER CORDS. When disconnecting cord-connected tools from power, grab and pull the plug—NOT the cord. Carrying or pulling the cord may damage wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, sharp edges, moving parts, and wet/damp locations. Damaged cords increase risk of electrocution.

UNATTENDED OPERATION. Never leave tool running while unattended. Turn tool ***OFF*** and ensure all moving parts completely stop before walking away.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Powered Hand Planers

⚠WARNING

Amputation, serious cuts, entanglement, or death can occur from contact with rotating cutterhead or other moving parts! Flying chips can cause eye injuries or blindness. Knives/inserts thrown by cutterhead can strike nearby operator or bystanders with deadly force. To reduce the risk of these hazards, operator and bystanders MUST completely heed hazards and warnings below.

AVOID CONTACT WITH MOVING PARTS. Never remove guards/covers while connected to battery. You could be seriously injured if you accidentally touch spinning cutterhead or get entangled in moving parts. Never attempt to clear chips away from base/dust port when tool is running. If sawdust removal is necessary, turn planer ***OFF***, allow cutterhead to stop, and remove battery before clearing. DO NOT stop cutterhead using hand or any other object.

DULL/DAMAGED KNIVES/INSERTS. Only use sharp, undamaged knives/inserts. Dull or damaged knives/inserts put excessive strain on tool and can cause loss of control of unit.

SECURING WORKPIECE. NEVER hold workpiece by hand or against body during operation. Unsecured workpiece may be expelled by cutterhead and strike operator or bystanders. Securely clamp or otherwise secure workpiece before performing operation, and ensure clamps or other holding fixtures will not obstruct movement of planer as it progresses through cut. Hitting unexpected obstruction can cause potential loss of control of tool.

PLANING CORRECT MATERIAL. Only plane natural wood stock with planer. DO NOT plane MDF, OSB, plywood, laminates or other synthetic materials that can break up and be ejected towards operator.

GRAIN DIRECTION. Planing across grain is hard on planer and puts excessive strain on tool that can cause loss of control of unit. Plane in same direction or at slight angle with wood grain.

CUTTING LIMITATIONS. To reduce risk of damage to tool, do not exceed maximum depth of cut found under **Specifications**. Better results can be achieved by taking multiple passes with small amount of material removal in each pass.

CUTTERHEAD SPEED/FEEDING. To reduce risk of tool damage, injuries due to thrown knives or debris, and loss of control of unit, never start planer with workpiece touching cutterhead. While holding tool with both hands, allow cutterhead to reach full speed before feeding, maintain constant feed speed during cutting operation, and allow cutterhead to come to complete stop before setting tool down.

INSPECTING STOCK. To reduce risk of tool damage and injuries due to thrown knives or debris, thoroughly inspect and prepare workpiece before cutting. Verify workpiece is free of nails, staples, loose knots, or foreign material.

SECURE KNIVES/INSERTS. Loose knives or improperly set inserts can become dangerous projectiles or cause tool damage. Always verify knives/inserts are secure and properly adjusted before operation.

CLEARING DUST. Always disconnect battery before clearing away dust or removing dust bag or hose. Some wood surface coatings are flammable and can self-ignite if not disposed of. Empty dust bag or collection system frequently during operations and ensure dust bag is empty before storing tool.

Additional Safety for Batteries & Chargers

⚠WARNING

Battery and charger components may cause irritation, burns, electric shock or fire if disassembled, damaged, stored incorrectly, or disposed of incorrectly. Connecting charger to circuit it is not rated for could result in fire or explosion. To reduce the risk of these hazards, operator and bystanders MUST completely heed hazards and warnings below.

READ ENTIRE MANUAL. Read and understand all of the instructions and warnings before charging battery.

CHARGING EQUIPMENT. Only charge battery using charger and battery supplied with tool. DO NOT use batteries or chargers from other cordless tools.

CHARGING ENVIRONMENT. Charge battery on dry, hard surface in shaded location with good ventilation. DO NOT place charger on or near flammable materials. DO NOT cover charger when charging. DO NOT expose charger to moisture. Only charge battery when temperature is between 50°F (10°C)–104°F (40°C). Charging in temperatures beyond these extremes will damage battery.

DO NOT DISASSEMBLE BATTERY OR CHARGER. Tampering with battery or charger may result in risk of electric shock or fire.

CHARGER DAMAGE. Replace charger if it has been dropped, damaged, exposed to liquid, or has received hard impact.

DISCONNECT CHARGER. Unplug charger when cleaning, or when not in use.

SHORTING BATTERY. Avoid touching both terminals at the same time with skin or metal, to prevent injury from an electrical shock and to prevent fire from spark. Do not store battery with metal objects that could create connection between terminals or in place where it could get wet.

CHARGER VOLTAGE. DO NOT plug into circuit that charger is not rated for. Connecting charger to circuit with incorrect voltage will damage charger, possibly causing fire or explosion. DO NOT charge from DC power supply or generator or with extension cord.

DAMAGED BATTERY. Regularly inspect battery for any damage, corrosion, or any condition that may affect safe operation. Immediately replace damaged battery before operating tool.

BATTERY DISPOSAL. Battery must be recycled or disposed of properly. DO NOT dispose of battery in landfill or incinerate. Combustion of some of battery's components can cause toxic fumes and possible explosion.

BATTERY LIQUID. Liquid contained in batteries can cause irritation or burns. If liquid contacts eyes or skin, flush with water and seek medical assistance.

⚠CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment or poor work results.

SECTION 2: INTRODUCTION

Foreword

We are proud to offer this manual with your new hand planer! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the hand planer we used when writing this manual. However, sometimes we still make an occasional mistake.

Also, owing to our policy of continuous improvement, your hand planer may not exactly match the manual. If you find this to be the case, and the difference between the manual and hand planer leaves you in doubt, check our website for the latest manual update or call technical support for help.

For your convenience, we post all available manuals and manual updates for free on our website at www.grizzly.com. Any updates to your model of machine will be reflected in these documents as soon as they are complete.

Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
E-Mail: techsupport@grizzly.com

We want your feedback on this manual. If you can take the time, please email or write to us at the address below and tell us how we did:

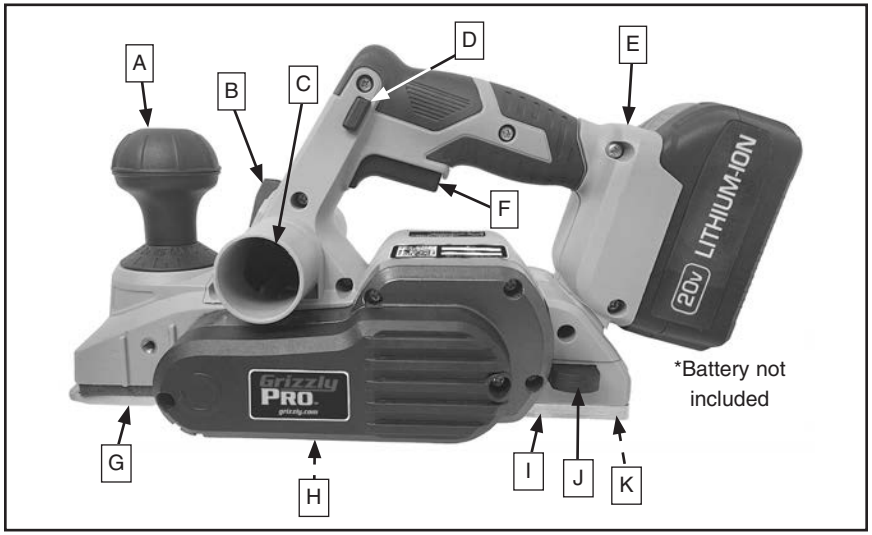
Grizzly Industrial, Inc.
C/O Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Specifications

Charging Source	120V
Battery Type	20V Lithium-Ion
Maximum Planing Width	3-1/4"
Maximum Planing Depth	5/64"
Maximum Rabbeting Depth	7/16"
Length x Width x Height	12" x 8" x 9"
Dust Port Size	1-1/2"
Cutterhead Speed (No Load)	15,000 RPM
Sound Rating	84–86 dB
Weight	5.7 lbs.

Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



A. Depth Knob: Adjusts front shoe/depth of cut in 1/256" increments up to 5/64".

B. Dust Port Selector: Switches chip ejection between left and right ports.

C. Dust Port (1 of 2): Ejects chips.

D. Trigger Lock: Prevents trigger from starting motor. Must be pressed to engage trigger.

E. Battery Port: Connection for 20V Grizzly PRO 20V Lithium-Ion battery.

F. ON/OFF Trigger: Starts/stops motor.

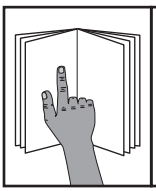
G. Front Shoe: Determines depth of cut.

H. Cutterhead: Includes (2) 3¼" wide, double-sided knives for cutting.

I. Rear Shoe: Provides outfeed support for cutterhead knives.

J. Tool Holder: Holds 8mm wrench and 2.5mm hex wrench for knife adjustments.

K. Kickstand: Prevents cutterhead knives from coming into contact with surface planer rests on when not in use.



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using tool.

SECTION 3: SETUP

Unpacking

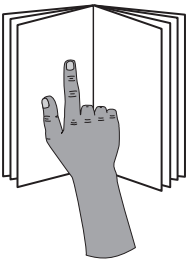
This tool was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

IMPORTANT: Save all packaging materials until you are completely satisfied with the tool and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return the tool later.*

⚠CAUTION

Like all tools there is potential danger when operating this tool. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this tool with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠WARNING



This tool presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the tool!

Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Dust Hose 1-1/2"	1
• Hose Clamp 1-1/2"	1
• Dust Collection System or Shop Vacuum	1

Inventory

The following is a list of items shipped with your tool. Before beginning setup, lay these items out and inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

NOTICE

If you cannot find an item on this list, carefully check around/inside the tool and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Loose Inventory (Figure 1)	Qty
A. Fence	1
B. Fence Mounting Bracket	1
C. Depth Gauge	1
D. Fence Lock Knob	1
E. Depth Gauge Lock Knob	1
F. Fence Scale Lock Knob	1
G. Fence Scale Lock Screw	1

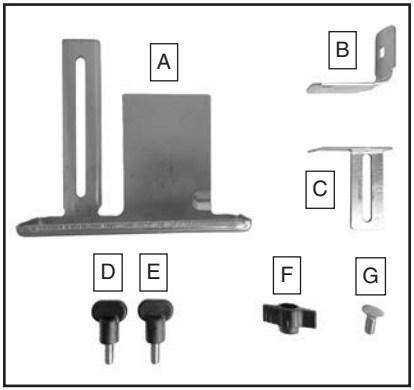


Figure 1. Loose inventory.

Dust Collection

⚠CAUTION

This tool creates a lot of wood chips/dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust-collection system.

The Model T33307 is equipped with a 1½" dust port that can attach to a dust collection system or shop vacuum.

To connect to dust collection system:

1. Fit 1½" dust hose over dust port (see **Figure 2**) and secure in place with hose clamp.

2. Flip dust port selector so that chips only eject on side where dust collection system is installed (see **Figure 2**).

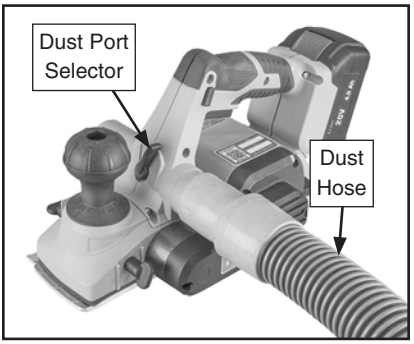


Figure 2. Dust collection installed.

3. Tug hose to make sure it does not come off.

Note: *A tight fit is necessary for proper performance.*

Charging/Installing Battery

The Model T33307 is compatible with Grizzly PRO 20V Lithium-Ion batteries (see **Accessories** on **Page 17**).

Removing/Charging Battery

1. Press battery lock (see **Figure 3**) and remove battery from planer.

Figure 3. Location of battery lock.

2. Plug charger into 120V outlet.

3. Slide battery into charger until battery clicks in place (see **Figure 4**). Red light will illuminate while battery is charging. When green light illuminates, battery is fully charged.

   Note: *Fully charge battery before first use.*

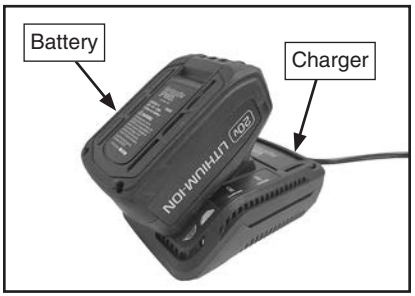


Figure 4. Battery in charger.

Installing Battery in Planer

1. Press battery lock (see **Figure 5**) and remove battery from charger.

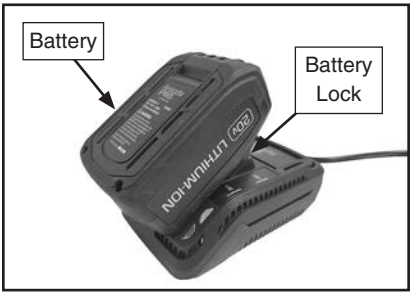


Figure 5. Location of battery lock.

2. Move trigger lock to center position to prevent tool from starting, then slide battery into port on back of planer (see **Figure 6**).

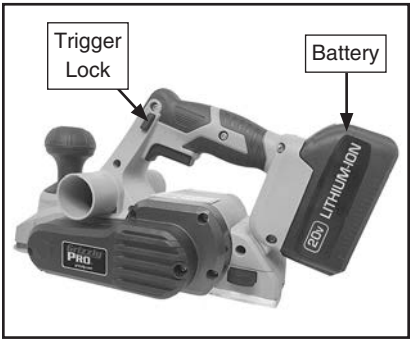


Figure 6. Battery in planer.

Test Run

Once assembly is complete, test run the tool to ensure it is properly connected to power and safety components are working properly.

If you find an unusual problem during the test run, immediately stop the tool, disconnect it from power, and fix the problem BEFORE operating the tool again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The test run consists of verifying the following: 1) The motor powers up and runs correctly and 2) the trigger safety functions correctly.

⚠WARNING

Serious injury or death can result from using tool BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, tool until information is understood.

⚠WARNING

DO NOT start tool until all preceding setup instructions have been performed. Operating an improperly set up tool may result in malfunction or unexpected results that can lead to serious injury, death, or tool/property damage.

To test run tool:

1. Clear away all setup/adjustment tools.

2. Install battery in planer (see **Charging/Installing Battery** on **Page 9**).

3. Pick up planer with one hand on depth knob and other hand on handle (see **Figure 7**), keeping cutterhead away from any surfaces or objects.

4. Press trigger lock and squeeze ON/OFF trigger. Allow cutterhead to reach full speed (see **Figure 7**).

   — Motor should run smoothly and without unusual problems or noises.

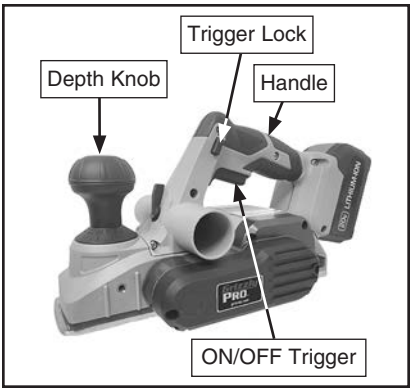


Figure 7. Controls on hand planer.

5. Release ON/OFF trigger and trigger lock. Motor should immediately stop running.

6. Try to start tool by squeezing ON/OFF trigger without pressing trigger lock.

   — If tool *does not* start, safety feature of operating handle is working correctly. Congratulations! Test run is complete.

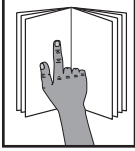
   — If tool *does* start, immediately release ON/OFF trigger and disconnect battery. Replace or repair trigger lock so it disables trigger switch before using tool.

SECTION 4: OPERATIONS

Operation Overview

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the tool is used during operation, so the tool controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is not intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using tool.

⚠WARNING

Eye injuries, respiratory problems, or hearing loss can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for planing.
2. Secures workpiece.
3. Adjusts cutting depth.
4. Installs fence if edge planing or fence and depth gauge if rabbeting.
5. Puts on safety glasses, hearing protection, and respirator.
6. Places tool on workpiece without cutterhead contacting workpiece.
7. Starts tool.
8. Waits for cutterhead to reach full speed, then moves tool forward to plane workpiece.
9. Once cut is complete, stops tool, allows cutterhead to come to complete stop, then lifts tool.
10. Repeats **Steps 6–9** until desired result is achieved.

NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Workpiece Inspection

Some workpieces are not safe to use or may require modification before they are. **Before cutting, inspect all workpieces for the following:**

- **Material Type:** This tool is only intended for workpieces of natural wood fiber. Attempting to use workpieces of any other material that may break apart during operation could lead to serious personal injury and property damage.
- **Foreign Objects:** Inspect lumber for defects and foreign objects (nails, staples, embedded gravel, etc,). If you have any question about the quality of your lumber, DO NOT use it. Remember, wood stacked on a concrete floor can have small pieces of stone or concrete pressed into the surface.
- **Large/Loose Knots:** Loose knots can become dislodged during operation. Large knots can cause tool damage. Always use workpieces that do not have large/loose knots.
- **Wet or "Green" Stock:** Avoid using wood with a high water content. Wood with more than 20% moisture content or wood exposed to excessive moisture (such as rain or snow), will cut poorly and cause excessive wear to the tool. Excess moisture can also hasten rust and corrosion of the tool and/or individual components.

Adjusting Depth of Cut

The depth of cut on the Model T33307 can be adjusted by rotating the depth knob to raise or lower the front shoe. Each click stop of the knob adjusts the depth by 1/256" (0.1mm), allowing for adjustments between 0–5/64" (0–2mm). Generally, the best results will be achieved with several successive passes rather than trying to remove the maximum amount of material in one pass.

We suggest removing no more than 1/64" of wood per pass for best results.

To adjust cutting depth:

1. Rotate depth knob clockwise to increase planing depth, and counterclockwise to decrease planing depth (see **Figure 8**).

   Note: *Each mark on knob indicates 1/256" increment.*

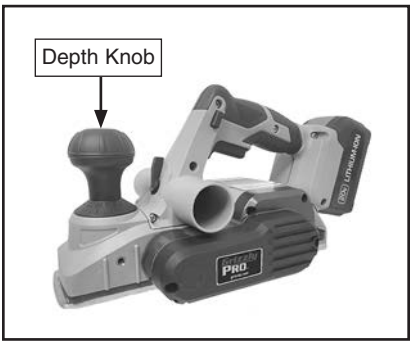


Figure 8. Location of depth knob.

Tip: *Test new depth setting on scrap wood to ensure it is removing the desired amount of wood before performing desired operation.*

Installing Fence

The fence can be installed to act as an edge guide for basic planing operations or it can be installed to perform rabbeting cuts.

To install fence:

1. DISCONNECT BATTERY FROM TOOL!

2. Secure fence to fence mounting bracket with fence scale lock knob and fence scale lock screw (see **Figure 9**).

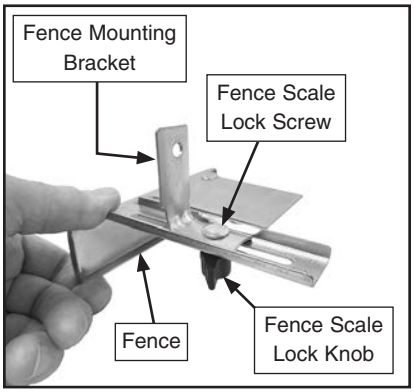


Figure 9. Fence assembly.

3. Secure fence mounting bracket to planer using fence lock knob (see **Figure 10**).

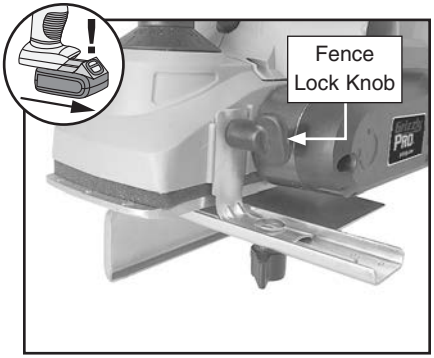


Figure 10. Fence installed.

Basic Planing Operations

Plane a workpiece surface or edge with the following steps. This planer will produce the best results when the width of the cutterhead (3¼") exceeds the width of your workpiece.

To perform planing operations:

1. Secure workpiece firmly in place.

2. Adjust depth knob for desired depth of cut.

3. For planing long or uneven surfaces, refer to **Installing Fence** to use fence as edge guide.

4. Pick up and hold planer firmly with one hand on depth knob and other hand on handle.

5. Rest front shoe flat against workpiece without cutterhead contacting workpiece (see **Figure 11**).

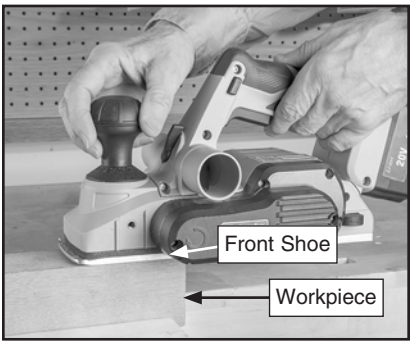


Figure 11. Front shoe flush with workpiece.

— If using fence as edge guide, loosen fence scale lock knob, adjust fence against workpiece, then tighten lock knob (see **Figure 12** on **Page 14**).

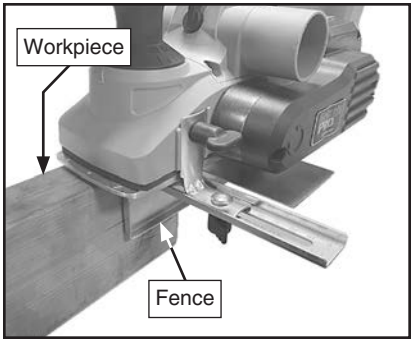


Figure 12. Fence adjusted for use as edge guide.

6. Press trigger lock and squeeze ON/OFF trigger (see **Figure 13**). Allow cutterhead to reach full speed.

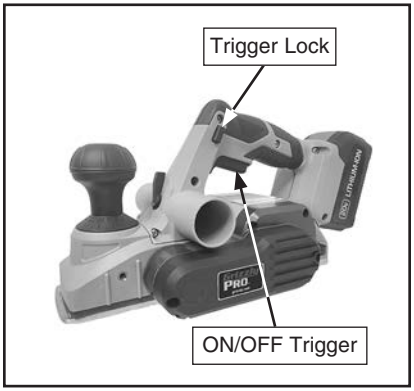


Figure 13. Hand planer controls.

7. While applying pressure to front of tool, push planer firmly across workpiece. Keep planer level during duration of planing stroke, then apply pressure to rear of planer to complete pass as cutterhead leaves workpiece.

8. Release trigger, allow cutterhead to come to a stop while rear shoe rests on workpiece, then lift planer and inspect workpiece.

9. Repeat **Steps 5–8** until desired result is achieved.

Rabbeting Operations

"Rabbeting" is the cutting of a notch along the edge of a board to allow mating pieces to fit together tightly. Refer to **Installing Fence** to prepare the planer for rabbeting so only the minimum exposed area of the cutterhead will actually cut into the workpiece.

The maximum rabbeting depth for the T33307 is 7/16". It may take several successive passes to achieve the full depth of your desired rabbet as a 1/64" depth per pass will produce the best planing results.

To perform rabbeting operations:

1. DISCONNECT BATTERY FROM TOOL!

2. Loosen fence scale lock knob (see **Figure 14**) to adjust fence for width of rabbet cut.

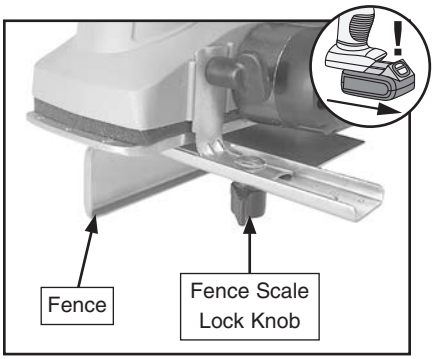


Figure 14. Location of adjustment components.

3. Install depth gauge with depth gauge lock knob (see **Figure 15**).

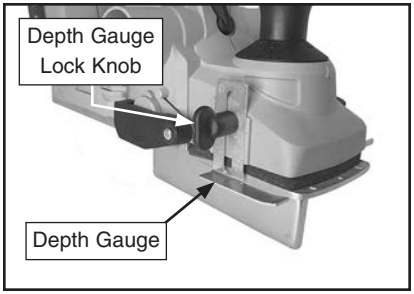


Figure 15. Depth gauge installed.

4. Loosen depth gauge lock knob and adjust depth gauge to desired depth of rabbet cut, then tighten to secure.

Note: *Arrow indicator on planer for depth gauge scale is accurate when depth of cut is set to 3/64" (1.1mm). If planing at a different depth, scale can be used as a reference, but another measuring method should be used to determine exact depth.*

5. Secure workpiece firmly in place.

6. Adjust depth knob for desired depth of cut.

Note: *Depth of cut is different than depth gauge setting. Depth gauge setting is the desired rabbet depth after multiple passes. "Depth of cut" refers to planing depth per pass.*

7. Pick up and hold planer firmly with one hand on depth knob and other hand on handle.

8. Rest front shoe flat against workpiece surface and fence flush with edge of workpiece (see **Figure 16**). Cutterhead should not contact workpiece.

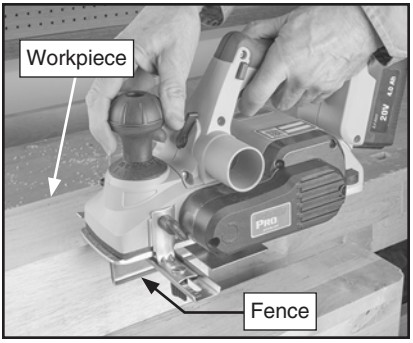


Figure 16. Fence flush with workpiece for rabbeting operation.

9. Press trigger lock and squeeze ON/OFF trigger (see **Figure 17**). Allow cutterhead to reach full speed.

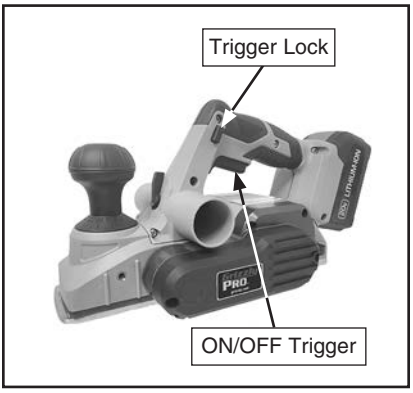


Figure 17. Hand planer controls.

10. While applying pressure to front of tool, push planer firmly across workpiece. Keep planer level during duration of planing stroke, then apply pressure to rear of planer to complete pass as cutterhead leaves workpiece.

11. Release trigger, allow cutterhead to come to a stop while rear shoe rests on workpiece, then lift planer and inspect workpiece.

12. Repeat **Steps 7–11** until depth gauge contacts workpiece and desired rabbeting depth is achieved.

Chamfering Operations

The front shoe of the Model T33307 has three machined V-grooves to allow for edge chamfering. To cut a chamfer is to cut away the corner of a workpiece to add a beveled edge between the two workpiece surfaces (see **Figure 18**).

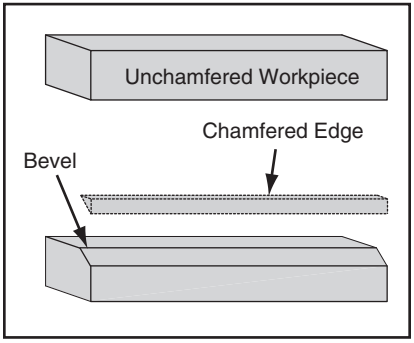


Figure 18. Example of chamfered edge.

To perform chamfering operations:

1. Secure workpiece in place.

2. Adjust depth knob for desired depth of cut.

3. Pick up and hold planer firmly with one hand on depth knob and other hand on handle.

4. Set desired front shoe V-groove flush with edge of workpiece (see **Figure 19**). Cutterhead should not contact workpiece.

   Note: *(3) arrows are embossed on top of front shoe to show location of V-grooves. Use arrows to keep V-groove aligned with workpiece edge in following steps.*

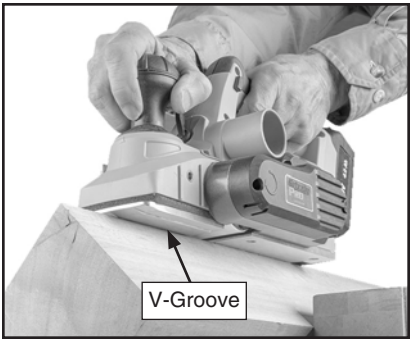


Figure 19. Workpiece edge aligned with V-groove.

5. Press trigger lock and squeeze ON/OFF trigger (see **Figure 20**). Allow cutterhead to reach full speed.

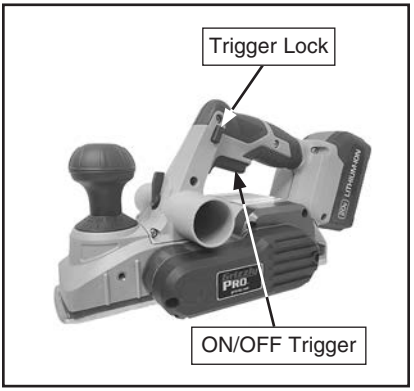


Figure 20. Hand planer controls.

6. While applying pressure to front of tool, push planer firmly across workpiece. Apply pressure to rear of planer to complete pass as cutterhead leaves workpiece.

7. Release trigger, allow cutterhead to come to a stop while rear shoe rests on workpiece, then lift planer and inspect workpiece.

8. Repeat **Steps 3–7** until desired chamfering result is achieved.

SECTION 5: ACCESSORIES

⚠WARNING

Installing unapproved accessories may cause tool to malfunction, resulting in serious personal injury or tool damage. To reduce this risk, only install accessories recommended for this tool by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

T30304—2.0Ah Lithium-Ion Battery
T30305—4.0Ah Lithium-Ion Battery
These 20V, rechargeable batteries can be used with any 20V Grizzly PRO cordless power tool. Built by Samsung, these batteries are low profile and lightweight.

Figure 21. Grizzly PRO 20V Lithium-Ion batteries.

T30302—2.4A Fast Charger
T30303—2.4A Dual Port Charger
These chargers are compatible with the T30304 and T30305 batteries used with the 20V Grizzly PRO cordless power tool lineup.

Figure 22. Battery chargers.

T33445—Replacement Knives for T33307
Replacement knives measure 3¼" x ¼" x 1/16".

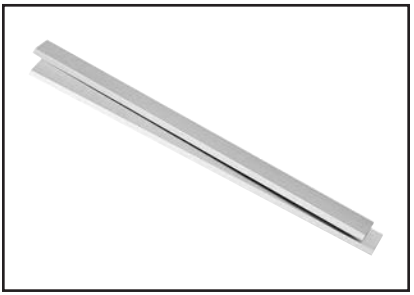


Figure 23. Model T33445 Replacement Knives for T33307.

SECTION 6: MAINTENANCE

⚠WARNING

Always DISCONNECT BATTERY from tool before servicing, adjusting, or doing maintenance to reduce the risk of injury due to tool starting accidentally.

For optimum performance from this tool, routinely check the condition of the following items and repair or replace as necessary.

- Loose bolts.
- Damaged/dull knives.
- Worn or damaged wires.
- Damaged belt.
- Any other unsafe condition.

Cleaning

Use a brush and a shop vacuum to remove wood chips and dust from the tool, particularly from around the tool holder and motor vents. Never blow off the tool with compressed air, as this could force debris more deeply into the motor vents.

Reversing/Replacing Knives

The Model T33307 cutterhead has two reversible knives. If damage occurs to the knives, they will either need to be reversed or replaced.

If one knife is dull or damaged, reverse or replace both knives as a set. DO NOT attempt to sharpen the knives.

Items Needed	**Qty.**
Open-End Wrench 8mm (Tool Holder)	1
Flat Head Screwdriver ¼"	1
Protective Gloves	1 Pr.
Replacement Knives (#PT33307037-6)	2
Straightedge 6"	1
Hex Wrench 2.5mm (Tool Holder)	1

To reverse/replace knives:

1. DISCONNECT BATTERY FROM TOOL!

2. Remove tool holder to access 8mm wrench and 2.5mm hex wrench (see **Figure 24**).

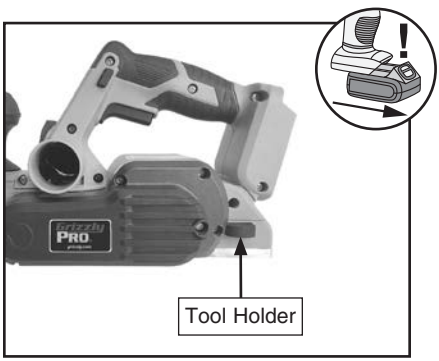


Figure 24. Tool holder location.

⚠CAUTION

Wear protective gloves to protect hands while handling knives.

3. Rotate (3) hex bolts shown in **Figure 25** clockwise.

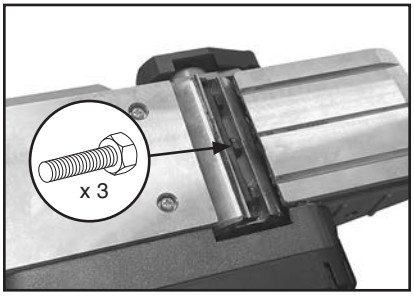


Figure 25. Location of hex bolts securing knife.

4. Press cutterhead cover back, then use flat head screwdriver to slide knife out of cutterhead (see **Figure 26**).

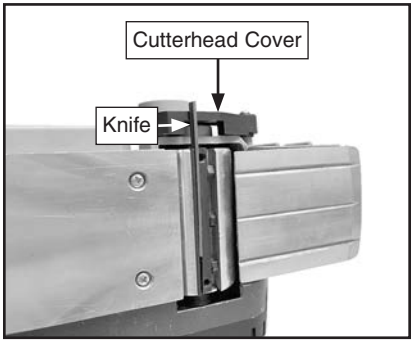


Figure 26. Removing knife.

5. Reverse or replace knife, then slide knife into cutterhead. Align knife edge with knife holder edge (see **Figure 27**).

6. Lay straightedge across rear shoe and extend over cutterhead without touching front foot (see **Figure 27**). Move straightedge across full length of knife.

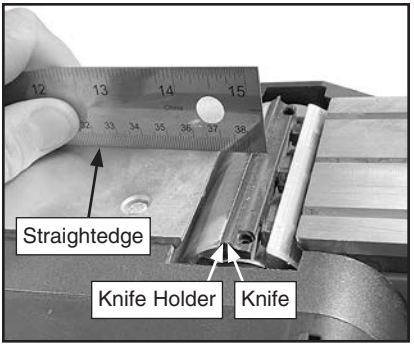


Figure 27. Verifying knife alignment.

— If entire length of knife *is* flush with straightedge, knife does not need to be adjusted. Rotate hex bolts from **Step 3** counterclockwise to secure knife before proceeding to **Step 9**.

— If entire length of knife *is not* flush with straightedge, proceed to **Step 7**.

7. Adjust (2) set screws shown in **Figure 28** to adjust knife until entire length is flush with straightedge.

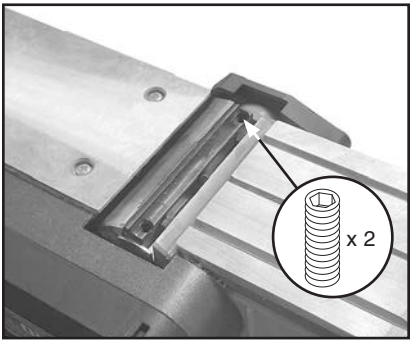


Figure 28. Location of knife adjustment set screws.

8. Rotate hex bolts from **Step 3** counterclockwise to secure knife.

9. Repeat **Steps 3–6** for remaining knife.

10. Install tool holder.

Checking/Replacing V-Belt

The V-belt transfers power from the motor to the cutterhead. To ensure efficient transfer of power, make sure the belt is always in good condition.

If the belt is worn, cracked, or damaged, replace it immediately.

Items Needed	Qty
Phillips Head Screwdriver #2	1
Replacement V-Belt (#PT33307003)	1

To check/replace V-belt:

1. DISCONNECT BATTERY FROM TOOL!

2. Remove (2) Phillips head screws shown in **Figure 29** to remove belt cover.

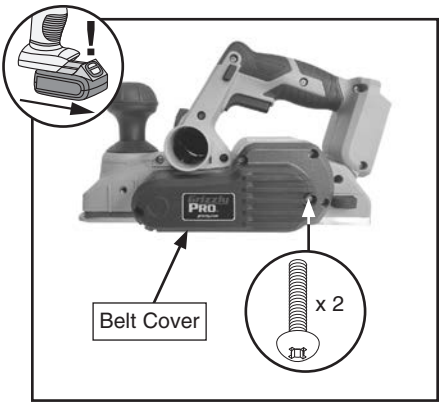


Figure 29. Location of belt cover and Phillips head screws.

3. Rotate belt clockwise on pulleys to inspect belt for cracks or damage.

   — If belt *is not* damaged, and there *has not* been a drop in power, belt does not need to be replaced. Proceed to **Step 6**.

   — If belt *is* damaged, or there *has* been a drop in power, proceed to **Step 4**.

4. Rotate belt clockwise while gradually working it off of pulleys (see **Figure 30**).

5. Place new belt around small pulley, then rotate belt clockwise while working it onto large pulley (see **Figure 30**).

   Note: *Ribs in belt must sit in pulley grooves for effective power transfer.*

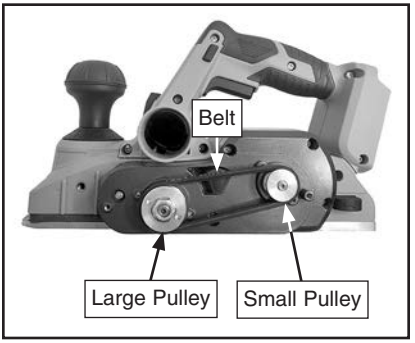


Figure 30. Location of belt and pulleys.

6. Install belt cover with screws removed in **Step 2**.

SECTION 7: SERVICE

Review the troubleshooting and procedures in this section if a problem develops with your tool. If you need replacement parts or additional help with a procedure, call our Technical Support.

Troubleshooting

Motor & Electrical

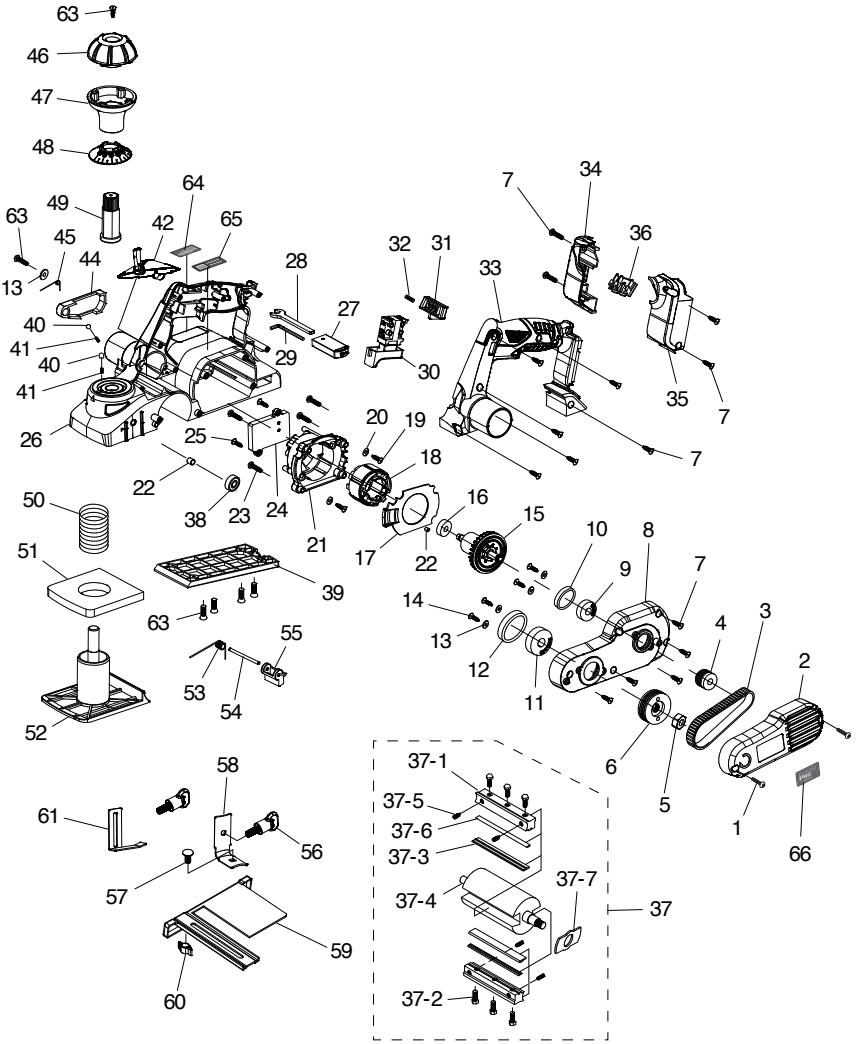
Symptom	Possible Cause	Solution
Tool does not start.	1. Battery charge low. 2. Trigger lock not fully engaged. 3. Wiring broken, disconnected, or corroded. 4. Trigger switch at fault. 5. Motor or motor bearings at fault.	1. Recharge battery (**Page 9**). 2. Fully engage trigger lock to actuate motor trigger. 3. Fix broken wires or disconnected/corroded connections. 4. Replace trigger switch. 5. Replace motor.
Tool stalls or is underpowered.	1. Battery charge low. 2. Workpiece material not suitable for tool. 3. Tool undersized for task. 4. Dull knives. 5. Belt slipping. 6. Motor overheated. 7. Motor or motor bearings at fault.	1. Recharge battery (**Page 9**). 2. Only cut wood/ensure moisture is below 20% (**Page 12**). 3. Reduce depth of cut (**Page 12**)/reduce feed rate. 4. Reverse or replace knives (**Page 18**). 5. Clean/replace belt (**Page 20**). 6. Clean motor, let cool, and reduce workload. 7. Replace motor.
Tool has vibration or noisy operation.	1. V-belt worn, loose, pulleys misaligned, or belt slapping cover. 2. Knives/gibs at fault. 3. Pulley loose. 4. Cutterhead bearings at fault. 5. Motor bearings at fault.	1. Inspect/replace belt (**Page 20**). Realign pulleys if necessary. 2. Reverse or replace knives; set knife alignment/height correctly (**Page 18**). 3. Secure pulley on shaft. 4. Replace bearing(s). 5. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

Operations

Symptom	Possible Cause	Solution
Chipping.	1. Knots or conflicting grain direction in wood. 2. Taking too deep of a cut. 3. Moving tool too fast. 4. Nicked, chipped, or dull knives.	1. Inspect workpiece for knots and grain direction; only use clean stock, and cut WITH the grain (**Page 12**). 2. Reduce depth of cut (**Page 12**). Always reduce cutting depth when planing hard woods). 3. Reduce feed rate. 4. Reverse or replace knives (**Page 18**).
Fuzzy grain.	1. Wood may have high moisture content or surface wetness. 2. Dull knives.	1. Check moisture content is below 20% and allow to dry if moisture is too high. 2. Reverse or replace knives (**Page 18**).
Long lines or ridges that run along length of workpiece.	1. Nicked or chipped knives. 2. Knives not aligned with rear shoe.	1. Reverse or replace knives (**Page 18**). 2. Align blade with rear shoe (**Page 18**).
Glossy surface.	1. Dull knives. 2. Moving tool too slow.	1. Reverse or replace knives (**Page 18**). 2. Increase feed rate.
Motor runs, but cutterhead does not spin.	1. Belt damaged/broken.	1. Replace (**Page 20**).
Uneven cutting marks, wavy surface, or chatter marks across face of workpiece.	1. Moving tool too fast. 2. Knives not installed correctly. 3. Worn cutterhead bearings.	1. Reduce feed rate. 2. Re-install knives (**Page 18**). 3. Check/replace cutterhead bearings.
Vibration when running or cutting.	1. Loose/damaged knives. 2. Damaged V-belt. 3. Worn cutterhead bearings. 4. Loose/damaged cutterhead.	1. Re-install or replace knives (**Page 18**). 2. Replace belt (**Page 20**). 3. Check/replace cutterhead bearings. 4. Re-install/replace cutterhead.

SECTION 8: PARTS

Main



Main Parts List

REF	PART #	DESCRIPTION
1	PT33307001	PHLP HD SCR M4-.7 X 12
2	PT33307002	BELT COVER
3	PT33307003	V-BELT 2V X 25.5L RIBBED
4	PT33307004	DRIVE PULLEY
5	PT33307005	HEX NUT M8-1.25
6	PT33307006	CUTTERHEAD PULLEY
7	PT33307007	TAP SCREW M4 X 14
8	PT33307008	SPINDLE HOUSING
9	PT33307009	BALL BEARING 608-2RS
10	PT33307010	SEAL 21.5 X 25 X 3.5
11	PT33307011	BALL BEARING 6200-2RS
12	PT33307012	SEAL 30 X 33.4 X 3.5
13	PT33307013	FLAT WASHER 4MM
14	PT33307014	FLAT HD SCR M4-.7 X 10
15	PT33307015	ARMATURE
16	PT33307016	BALL BEARING 607-2RS
17	PT33307017	FAN BAFFLE
18	PT33307018	STATOR
19	PT33307019	TAP SCREW M4 X 20
20	PT33307020	FLAT WASHER 4MM
21	PT33307021	MOTOR BASE
22	PT33307022	RUBBER BUMPER 5 X 7
23	PT33307023	PHLP HD SCR M4-.7 X 20
24	PT33307024	CONTROLLER WL-P-JD
25	PT33307025	TAP SCREW M3 X 10
26	PT33307026	PLANER BODY
27	PT33307027	TOOL HOLDER
28	PT33307028	WRENCH 8MM OPEN-END
29	PT33307029	HEX WRENCH 2.5MM
30	PT33307030	TRIGGER SWITCH HL-10A 10A 250V
31	PT33307031	TRIGGER LOCK
32	PT33307032	COMPRESSION SPRING 0.6 X 5.8 X 23
33	PT33307033	HANDLE COVER
34	PT33307034	BATTERY TERMINAL COVER RIGHT
35	PT33307035	BATTERY TERMINAL COVER LEFT
36	PT33307036	TERMINAL BLOCK

REF	PART #	DESCRIPTION
37	PT33307037	CUTTERHEAD ASSEMBLY
37-1	PT33307037-1	GIB
37-2	PT33307037-2	HEX BOLT M5-.8 X 8
37-3	PT33307037-3	KNIFE FIXED PLATE
37-4	PT33307037-4	CUTTERHEAD 3-1/4" 2-KNIFE
37-5	PT33307037-5	SET SCREW M5-.8 X 8
37-6	PT33307037-6	KNIFE 3-1/4" X 1/4" X 1/16"
37-7	PT33307037-7	CUTTERHEAD SUPPORT PLATE
38	PT33307038	BALL BEARING 699-2RS
39	PT33307039	REAR SHOE
40	PT33307040	STEEL BALL 3MM
41	PT33307041	COMPRESSION SPRING 0.5 X 3.4 X 6.6
42	PT33307042	EJECTION PORT DIRECTION SWITCH
44	PT33307044	CUTTERHEAD COVER
45	PT33307045	TORSION SPRING
46	PT33307046	DEPTH KNOB COVER
47	PT33307047	DEPTH KNOB
48	PT33307048	DEPTH KNOB SCALE
49	PT33307049	DEPTH KNOB MOUNT
50	PT33307050	COMPRESSION SPRING 3.5 X 26 X 40
51	PT33307051	FOAM PAD
52	PT33307052	FRONT SHOE
53	PT33307053	TORSION SPRING
54	PT33307054	DOWEL PIN 1-5/8 X 3/32
55	PT33307055	KICKSTAND
56	PT33307056	KNOB BOLT M5-1 X 15, D24, WING
57	PT33307057	CARRIAGE BOLT M6-1 X 16
58	PT33307058	FENCE MOUNTING BRACKET
59	PT33307059	FENCE
60	PT33307060	KNOB M4-1, D4, WING
61	PT33307061	DEPTH GAUGE
63	PT33307063	TAP SCREW M4 X 12
64	PT33307064	MACHINE ID LABEL
65	PT33307065	QR CODE LABEL
66	PT33307066	GRIZZLY PRO LABEL

Parts breakdown provided for reference only. Not all parts shown are available for purchase.

WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

In the event you need to use this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number,'' which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

To take advantage of this warranty, you must register it at **https://www.grizzly.com/forms/warranty**, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.

WARRANTY

grizzly.com